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ORIGINAL ARTICLES.

EARLY DIAGNOSIS OF MALIGNANT DISEASE OF THE UTERUS.

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THERE are no more melancholy pages in the annals of human suffering than those which relate to the ravages of malignant disease of the uterus. To the gynecologist, the power of early diagnosis is as essential to the highest success in its management, as a sensitive conscience is to the moralist or the compass to the mariner. No matter how broad the culture, how consummate the skill, how exact the technic, or how perfect the mastery of the subject in other particulars, a lack of corresponding acquirement in ability to make the earliest possible diagnosis, may be fatal to the safety of the patient.

Notwithstanding the rapid advance in surgical pathology, and the aid clinical observation confers, the most expert diagnostician is painfully conscious of the limitation of his knowledge in the early stages of this fatal disease, and the meager data upon which he must formulate his deductions. While the evils which attend this very limitation of knowledge are a great embarrassment to the diagnostician, they bear with far greater severity on the unfortunate woman whose safety may hang on his ability to make an early and correct diagnosis. This power of early diagnosis as to benignancy or malignancy in uterine disease, is the ability to make plain the dim inscription on the signboard at the divergence of the two ways, one leading to hope, the other pointing to despair. Every dictate of reason, every consideration of safety, and every philanthropic impulse, demands the most careful scrutiny of every condition and detail which will aid in reaching correct conclusions. Nowhere in the domain of surgical procedure is avoidable delay more to be deprecated, and nowhere are the consequences more cruelly relentless. The diagnosis must rest on the information which pathology and clinical experience offers, and their combined wisdom must be invoked to yield the most trustworthy evidence.

Various answers have been given to the inter-

rogatory, What is cancer? A simple and rational answer is found in the statement that it consists of the presence of cells out of time and place. It is the presence and growth of epithelial cells, having within themselves an inherent tendency to rapid reproduction with abnormally low powers of resistance. The etiology of malignant disease is a matter of great interest, but the scope and purpose of this paper is so modified by necessary limitation, that this, with certain other aspects of the case, can be but briefly referred to. This limitation, to a large degree, applies to the minute histological study of cancer. Formerly it was held that the local manifestation of malignant disease was the secondary manifestation of a general systemic condition, but the development of cellular pathology has swept away any such hypothesis. The cells of cancer are heterogeneous to the particular structures in which they are found. The theory that they are congenital, finds able supporters, while others hold that various accidental causes are responsible for their presence, which includes inflammatory and degenerative changes. Different authors and writers have adopted various classifications of malignant disease, but one based on the pathological condition, rather than the clinical varieties, commends itself both for simplicity and accuracy. Such a natural classification of uterine cancer is found in the three pathological varieties, viz: adenoma, sarcoma, and carcinoma.

In point of manifestation, carcinoma—the epithelial type—is most frequent and most malignant; next in order of frequency is adenoma (not always malignant), the glandular type. Sarcoma ranks next, and while rare, possesses a high grade of malignancy.

The etiology of cancer, though a problem of importance, has not been authoritatively settled. Among the causative and predisposing factors, may be mentioned age, heredity, frequent gestation, and degenerative and hyperplastic changes. Skene, after analyzing many thousand cases, found an inherited taint in thirteen per cent. Comparative views of different writers give authority to the belief, that in quite a percentage of cases the line of progenitors for one or two generations had been, to a certain extent, victims of malignant disease. Evidently the relation be-

tween the number of children born and the frequency of uterine cancer is more than accidental. Traumatism as an etiological factor has not, I am fully assured, been accorded its proper place as an exciting cause. As substantiating this view, I have, after many years' observation, met with only a single case of cancer of the cervix in a woman who had not borne children, or who had at least not been pregnant; while cancer of the cervix and corpus has been of frequent occurrence in child-bearing women. Clinical experience gives ample proof that a close relation exists between laceration of the cervix and cancer of the cervix. Every woman who is known to have an unrepaired cervical laceration should either have the laceration repaired or be kept under regular observation until a period some years subsequent to the menopause, as a wise and reasonable precaution. The remarks of Goodell that "cancer of the body of the womb is a disease more of old maids and sterile wives, and that on the other hand, cancer of the cervix is almost always found in women who have borne children," is not without significance.

The rôle which syphilis, in its more remote effects, plays in the production of malignant disease, is as yet undetermined, but there is reason to believe it is not in certain cases without influence. The relation which undue, frequently repeated, and long continued irritation of uterine structure may bear to uterine cancer, is difficult of determination, but that it may be an important factor seems more than probable. The frequent development of epithelioma on the lips of smokers, and sarcoma resulting from contusions, lends plausibility to the theory.

Malignant disease of the cervix presents itself under two distinct varieties: one squamous-celled epithelioma (carcinoma) springing from the vaginal surface, and columnar-celled arising from the cervical glands or the cervical epithelium. The first variety show a tendency to outgrowing vegetations, involving the vaginal wall, rather than the connective tissue or substance of the cervix; while the second variety develops in the deeper structures of the cervix as a small nodule, and has a tendency to invade the corpus, and later the broad ligament. Being concealed from view, it covertly accomplishes its destructive course, and is liable to elude observation until its ravages are wholly beyond control.

Sarcoma of the corpus is rare, and that of the cervix still more infrequent. Great rapidity of growth and great malignancy are the common characteristics of sarcoma uteri. The rapidity

of the development of sarcoma is sometimes a mark of malignancy almost pathognomonic. A case which strikingly illustrated this feature of sarcoma recently came under my observation in a young woman, twenty-four years of age, which ran a fatal course in a little less than four months. It was of the diffused type, preceded for some period of time by symptoms of menorrhagia, developing itself in the broad ligament, simulating pelvic peritonitis, which made diagnosis impossible until the period was reached when it became inoperable; and then with galloping speed involved the entire corpus and left ovary.

In development carcinoma falls short of any definite glandular formation, while adenoma is distinctively such. As to frequency of malignant disease of the cervix, that of the columnar-celled type predominates over the epithelial, while in the corpus, adenoma is the rule. In carcinoma of the corpus the point of development arises in the glands as papillary proliferations into the cavity or into the uterine wall. Virchow describes three varieties of sarcoma, the round-celled, the spindle-celled, and myxo-sarcoma. They are regarded as equally malignant, equally infectious, and in the main their symptoms are identical, or at least similar. Säger describes another variety known as *sarcoma deciduo-cellulare*, arising from decidual remains succeeding pregnancy, as the protoplasmic bodies closely resemble decidual formations.

Thornton, in a recent article in the *Lancet*, justly emphasizes the fact that any menstrual departure from the normal, no matter how trivial, is sufficient ground on which to insist on a thorough local examination. The causes which lead to excessive menstruation and uterine hemorrhage are so numerous and diversified that no effort will be made to differentiate them, except in so far as they relate to malignancy, and here only partially. Any escape of blood from the vagina at a period subsequent to the menopause, is a matter of deep significance, and, except in rare cases, is the concomitant of malignant disease. Any failure to accord it full significance and searching scrutiny, is, on the part of the general practitioner or gynecologist, not only culpable but little less than criminal. I have personally met with but few cases in which this symptom did not portend malignancy. The question whether menstrual excess or intramenstrual hemorrhage is due to systemic or local disease is of vital and far-reaching significance; and if local, whether the disease is malignant or suspicion points in that direction. The unfortunate fact connected with so many

cases of uterine cancer is that they come under observation so late as to be inoperable.

It is to be noticed that carcinoma of the cervix is more frequently found among the poorer classes, and is relatively a disease of mature life, most often found between thirty and sixty years. It was formerly believed that carcinoma of the corpus was extraordinarily infrequent, but improved methods of diagnosis and further observation disproves the assertion. The hemorrhage in cervical cancer may at first, in young women, retain the menstrual type and later on become irregular, while, after the menopause, it is atypical. In the very early stage of ulceration there may be entire absence of the putrefactive stench which is so often a characteristic feature. Such a case has just come under my observation, in a young and typical epithelioma of the cervix, in a woman sixty-three years of age. The duration of the disease varies greatly. Its progress may be slow or rapid. It has been known to terminate fatally in a few weeks after its perceptible beginning, or the patient may linger for a period of four or five years, the average being less than two years. It is a singular fact that women with carcinoma are found somewhat frequently to have increased sexual desire. The slight bleeding, incident to digital examination, should excite suspicion, and the cause determined, whether due to some form of erosion so frequently present on the cervix, whether the result of laceration and eversion so common in women who have borne children, or to graver causes. If the cervix is the seat of malignant disease, sight and touch will greatly aid in differentiation. In the early stage there is usually increase, perhaps slight, but appreciable, of the new structure with a tendency to invade contiguous tissue. The first change observable is enlargement and hardness of red nodules, which bleed easily and break down on touch as the disease progresses, the tendency to disintegration increases, and is attended with sero-purulent discharge and blood. The hard rim of the excavation, the crater-like depression, its tendency to bleed, are the unmistakable evidences of cancer. If these appearances are not already present in a degree sufficient to warrant an opinion, the case should be carefully watched, and gentle treatment applied to see whether the diseased surfaces heal. If of benign origin, the erosion or ulcer is likely to heal; if malignant, healing will not follow. The form of erosion in cancer of the cervix differs from follicular erosion, the edges being indurated and elevated. The papillary projections in cancer break down when scraped with the finger-nail

much more readily than the benign variety. Another distinction to be made between cancer and cervical endometritis, in its clinical history, is that in cancer the discharge has lost its mucous consistency, as mentioned by Boldt. When the disease originates in the cervical mucosa, or in the deeper cervical structures, the symmetrical or asymmetrical condition of the portio vaginalis should be closely observed. In the squamous-celled variety of cervical carcinoma the posterior lip is the point most frequently attacked.

Dr. John Byrne, whose large observation and experience in the treatment of uterine cancer, and whose opinion is entitled to great weight, says: "Regarding physical examination alone, without allusion to history, the existence or absence of hemorrhage, pain, etc. (the latter which has no special significance), that in women long past the menopause the portio will be found smaller, less projecting, and presenting a somewhat shriveled appearance, particularly around the os; whereas, in earlier life, say from thirty to forty, I have usually observed the portio longer than normal, *but symmetrically so*. When the diseased structures of the cervix are invaded, whether primarily or by extension, the change in form will rarely be found symmetrical, but one or the other lip enlarged and indurated and probably abraded."

If, as is sometimes true in the doubtful cases, the most careful clinical study is insufficient to determine the nature of the disease, diagnosis may be arrived at by detaching a small portion of the structure for microscopical examination. When this step is ventured on, before the ulcerative process has appeared, every preparation should be made for prompt operation if admissible, as soon as the histological study is completed, for such exposure adds vastly to the risk of more rapid spread of the disease. If the disease attacks the corpus, its usual initial point is on the free surface of the endometrium, in which event the cervix may be dilated, and the finger introduced for purposes of exploration. By this method areas of inflammatory enlargement, hypertrophy, and ulceration may be accurately located, and, in certain cases, serve as guides to curettage. Sometimes an examination of the *debris* spontaneously discharged or removed by the curette, may contain sufficient tissue on which to predicate the nature of the malady, and it is here that the skill of the pathologist finds a most attractive field for investigation. The causes for uterine hemorrhage are so frequently associated with inflammatory and degenerative changes of the endometrium, oftentimes benign, that the findings of

curettage are often of the highest value, not only for diagnostic purposes but for the selection of curative measures. If the disease has not progressed to a well-marked ulcerative stage and the menorrhagia occurs, positive evidence of malignancy, independent of other distinctive symptoms, may not be present until a second or third curettage. If the histological examination warrants the conclusion of malignancy the indications are plain. If otherwise, and hemorrhage continues, the employment of radical measures without positive proof of malignancy may be justified. There seems to be a growing consensus of opinion that menorrhagia of considerable duration not relieved by thorough curetting thrice repeated, possesses the essentials of malignancy and should be treated accordingly.

There is a form of adenoma uteri,¹ very little mentioned in literature, concerning which I have been able to find nothing in any English or American text-book or medical journal. I am indebted to the courtesy of my friend, Dr. J. M. Van Cott, Jr., Pathologist to the Brooklyn Gynecological Society, for the following brief résumé of the subject:² "It is a lesion of the corporeal portion of the endometrium, which consists of a chronic persistent hyperplasia of the endometrium, with adenomatous degeneration and progressive growth of the endometrium between the muscular bundles of the metrium proper. This produces a globular enlargement of the corpus uteri with atrophy of the muscular tissues and recurrent hemorrhage, which is severe and does not yield to curettage or any other form of treatment short of hysterectomy. It may occur at any period after the age of puberty; but is, perhaps, most common after the menopause. The diagnosis of this lesion is often surrounded with great difficulty, and can only be established by means of conjoined microscopic examination of accurately cut and prepared sections, in collodion or paraffin, and the clinical history of the case extending over a period covering several hemorrhages, recurring after thorough curettage. The diagnosis of this disease being positively assured, hysterectomy alone can afford permanent relief."

Skene teaches that there is a tendency in cases of benign adenoma of the endometrium, following curettage in from six months to two years, to be succeeded by epithelioma, and suggests the propriety of hysterectomy according to the pathological findings. Martin mentions the occurrence of the same procession of symptoms, and recom-

mends that where a single curettage is not attended by cure, hysterectomy should be done. Conditions analogous to these are not infrequently met with by one having much to do with the diseases of women. They are entitled to the most considerate and discriminating investigation, as the personal safety and future welfare of the patient depends on the skill and courage of the one to whom is entrusted such sacred prerogatives. This conclusion involves a discrimination from uterine hemorrhage due to benign neoplasms, such as submucous fibromata, myomata, or polypus, or of benign degeneration of the uterine mucosa, and the state of chronic ovaritis and some forms of metritis. An unusual form of inversion of the uterus, associated with great hyperplasia of its walls, in fleshy women with very thick and fat abdominal parietes, in which the tumor fills the pelvis as completely as the head of a child in a second stage of labor when associated with violent hemorrhage and profuse watery discharge and a thickened and abraded surface, is not, on first observation, so easy of determination. The presence or absence of offensive odor of the vaginal discharge in suspected cancer is a symptom of great significance. An ichorous, foul-smelling discharge, more or less mingled with blood, is, with some exceptions hereafter noted, almost pathognomonic of cancer. If associated with these symptoms there are those of pain and cachexia, the diagnosis is practically established. It should, however, be remembered that anemia, as expressed by pallor, is not cachexia, and is a usual concomitant of exsanguination in conditions where there is absence of malignancy. On the other hand, absence of pain as a single symptom by no means excludes cancer, for malignant disease may be far advanced, and yet painless. Exceptions are found in cases of long retained and decomposing placenta following miscarriage or premature labor, ulcerations found at seat of such placental implantation, and in some forms of neglected syphilitic ulceration. Another condition I have seen mistaken for cancer of the corpus in women ten or fifteen years beyond the menopause, associated with purulent and highly offensive discharges and great pallor, is that of small, sloughing submucous intrauterine fibroids, in which prompt recovery succeeded their removal. Diagnosis under such conditions would be facilitated and probably assured by careful microscopic examination of the discharges.

Doubtless these fibroids were present before the menopause, and had diminished in size *para passu* with the uterus while it was undergoing connec-

¹ "General Pathology and Therapeutics," Schwalbe.

² *Brooklyn Med. Jour.*, June, 1896.

tive tissue metamorphosis, by which the blood-supply was cut off and disintegration followed. There is a form of erosion and ulceration due to pressure of pessaries and the attrition incident to procidentia and purulent discharges of venereal origin, which must be distinguished from cancer. There are some points in the clinical history of cancer not alluded to, which should not be lost sight of. Perhaps the most important is the method of growth and dissemination of the cancer-cell. The spread of carcinoma and adenoma is through the lymphatics, that of sarcoma by contiguity of tissue and blood-currents. For this reason enlargement of the lymphatic glands would not obtain in the clinical history of sarcoma. Fixation of the uterus as an incident of cancer is worthy of careful study. Unless a clear history of the case from some authoritative source excludes previous pelvic inflammation, there may arise a nice point of distinction, whether the fixation is due to former adhesion or to extension of malignant infiltration. Careful study of the point of maximum fixation and its proximity to the seat of the disease, aided by thorough bimanual palpation, or the admirable method of diagnostic palpation so graphically described by Edebohl, will usually dissipate the doubt. Again, cancer is not to be confounded with constitutional impairment and offensive vaginal discharge found in fistulous openings into the vagina or uterus.

In malignant disease of the corpus not involving the cavity, early differentiation is a matter of great difficulty. Fortunately, however, it is a matter of infrequent occurrence. Absence of uterine discharge would not exclude its presence, as is true in the case of diffused sarcoma of the body. The presence of cachexia in suspected cases is a symptom of such recognized value as to require no comment. Conditions may exist in these or analogous cases where exploratory section, either vaginal or abdominal, is not only justifiable, but necessary, for diagnostic purposes, as in suspected cancer of the corpus and in fixation due to supposed previous adhesion.

In all that has been said of the varieties of uterine cancer, it should be remarked that the symptoms are essentially a unit, and do not vitally differ in the various varieties. Failure to find conclusive evidence in a given specimen of suspected structure would not alone be sufficient to exclude the diagnosis of cancer. Again, it should be borne in mind that the histological study of different mountings of the same specimen by two equally expert pathologists, in which the findings differed radically, one showing malignancy and

the other absence of it, would not disprove a diagnosis of malignancy. In other words, negative testimony, set over against positive proof, is without weight, and valueless.

Finally, the intrinsic value, for diagnostic purposes, of the information derived from expert microscopical examination of diseased structure is equal to that of every other consideration mentioned, providing, however, the conditions are favorable for such investigation. Both time and space forbid entering on the differential diagnosis of these growths from the histological standpoint. Suffice it to say, however, that the evidence it presents is authoritative and final.

ON THE TREATMENT OF BIRTHMARKS.

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THE comparative frequency with which one sees upon the street or in private practice most distressing cases of birthmarks, must have been noticed by every observant physician.

And the fact that beautiful girls are allowed to pass through life with a crimson stain upon the forehead, or a yellow mark upon the cheek, would argue that many family physicians are entirely unaware of the ease with which many of these hideous disfigurements can be obliterated. They are, as a rule, present at birth, though they may not be noticed till some time after, and are generally ascribed by the laity to some previous impression made upon the mind of the mother. This theory has been much ridiculed, but the frequency with which cases, apparently substantiating it, are met with should make us cautious in our disbelief. Almost every person has a birthmark of some kind somewhere.

One of the commonest types is that called the *nevus araneus*, or spider nevus, from its resemblance to the small red garden spider.

It consists of a central dilated capillary, with a few little radiating capillaries, and occurs chiefly on the head and face, a favorite location being at the junction of the nose and inner canthus of the eye. Another anomaly of circulation gives the *port-wine nevus* (*nevus flammeus*), which may occur upon any part of the body, but is especially frequent about the head and neck. They may be of the size of a dime, or may cover half the face, of any shape, flat or raised, rough or smooth. In color they vary from a bright red to a steel blue, depending in part on the condition of the blood, whether arterial or venous, but more on the depth of the vessels beneath the skin.

They may appear at birth, or may not be noticed for months; they may remain stationary in size or may possibly disappear spontaneously, while in a certain proportion of cases they steadily increase. All are marked by a tendency to blanch on pressure. In this form there is a simple increase in the size and number of the capillaries. Very different is the structure of the angiomatous nevi, in which there is an increase of connective tissue, while the blood is poured directly from the arterioles into the enlarged veins and sinuses without the intervention of capillaries. The whole structure being somewhat analogous to the corpus cavernosum, becoming erectile when irritated, and at times bleeding very easily. These are especially prone to occur about the mucous orifices, especially the mouth and vagina, and are by all means the most difficult to treat successfully. Entirely different in character and structure, but hardly less disfiguring, are the pigmented birthmarks. The simplest of these consists of a simple increase in the coloring matter of the skin, and is not raised above the surface, appearing as a brown mark, technically known as *nevus spilus*. Generally there is associated with this a decided hypertrophy of the connective tissue elements, causing a raised brown mark, generally small. The color varies from lemon to almost black; the surface may be smooth, or it may be rough enough to resemble a wart. The glandular and pilary elements in the skin may be atrophied or there may be a luxuriant growth of hair, darker in color than that of the rest of the body. This last form is generally called *nevus pilosus*, while if it contains an excessive amount of fatty matter it is called *nevus lipomatodes*. These pigment moles are much more likely to be multiple than the vascular ones. There are, of course, other varieties of moles, which are at times congenital, but those described affect most patients' peace of mind, by reason of the disfigurement they cause.

They have been treated by caustics and acids, by the actual cautery, by pressure, by ligature, and by vaccination. The *nevus araneus* is very easily destroyed. A needle may be dipped in carbolic acid and plunged into the central capillary, thus destroying the whole mark in a very few seconds. A very hot needle is equally effective, but these methods of procedure are objectionable where larger growths are concerned. They require great fortitude on the part of the patient, or the use of an anesthetic, and they give considerable pain afterward, while the destruction of tissue cannot be very well controlled. This is a very serious drawback, for we depend for our

result upon the substitution of a scar for the mark, and the lighter and thinner the scar, the better the cosmetic effect. For these reasons, the methods outlined above should never be employed about the uncovered parts of the body. The use of freshly prepared ethylate of sodium has been very highly recommended in vascular nevi that are not too large and deeply situated. It is rather painful, but after one or two applications, a thin crust forms which falls off in a few days, leaving a fairly thin scar. But unless the solution is freshly and carefully prepared, it is in effect an aqueous solution of caustic soda.

All things considered, the use of electrolysis is by far the most satisfactory means of treatment, but in order to secure good results it is necessary to have a good idea of the physical and chemical properties of the current. The appliances necessary consist of a galvanic battery of at least ten cells, or some means of regulating the street current, conducting cords, sponge electrodes, needle-holder, needles, etc. A milliamperemeter is not necessary, but it is an assistance to good work. The cells should be connected zinc to carbon. The needle-holder is better without the spring for breaking the current which is so generally provided, the needle may be varied in size according to the character of the work, from that of the very finest jeweler's needles to the broad flat surgical ones.

The sponge or punk electrode, attached to the positive pole, thoroughly moistened with saline solution, can be continuously applied to the skin, regulating the current through a rheostat, but the best way is to have the patient hold the sponge and complete the circuit by pressing it against some convenient part of his body. It is less painful to break the current at the positive pole, and the patient is able to regulate the current in part by increasing or decreasing the pressure. The needle attached to the negative pole should be introduced at the margin of the growth, either perpendicularly to the surface of the skin, or in a slanting direction, according to the size and depth of the nevus, and a current of from one to three milliamperes used according to the patient's fortitude. There is at once evolved at the negative pole about the needle, hydrogen gas, which can be seen bubbling up, and a caustic alkali, which destroys a certain amount of tissue in proportion to the strength of the current and the depth to which the needle has penetrated. No arbitrary rule can, therefore, be laid down as to the time, which is dictated entirely by experience. If it is left too long, too deep a scar results; if not

long enough, no appreciable effect is produced. The proximity of the insertions must be governed by the effect desired, which is to combine the white of the scar-tissue with the red of the nevus, so as to produce a general effect as much like the rest of the skin as possible. The punctures should not be closer together than a sixteenth of an inch. If the mark is large, work can be facilitated by using a group of needles.

In the large angiomaticous nevi, it is much harder to get a perfect cosmetic effect, for the scarring is apt to be deeper and more irregular, and on the whole, a different procedure is advisable.

The negative pole should be attached to the sponge this time, and we substitute for the steel needle a coarser one, of either copper, zinc, or silver, attached to the positive pole. This should be introduced deeply into the mass, and a current of from three to five milliamperes used, as it is less painful than negative electrolysis. About the needle are evolved oxygen, which can be seen bubbling up, chlorin and an acid, which are destructive to the tissues. This effect, however, is less active at the positive than at the negative pole.

The peculiar value of this method is, however, that in addition to the local destruction of tissue, the needle is rapidly oxidized and decomposed, and there is deposited an oxychlorid of copper or zinc, which is carried by the cataphoretic property of the current and diffused, coagulating the blood in the vessels. The needle is roughened after a short contact just as a nail is rusted, and sticks closely to the puncture, but comes away easily enough by reversing the poles of the battery a few seconds. But in the great majority of cases of angiomaticous nevi, it is not safe to make definite promises of a good result. The pigmented moles are best treated by negative electrolysis, and as the pigment is not deposited very deeply beneath the surface, the needle need not be introduced so deeply, better results being obtained by passing it just beneath the surface from one side of the mole to the other, repeating the process according to the size of the mark.

In all these cases there will follow for several hours some signs of cutaneous inflammation, which can best be treated by means of hot water. No great change in the appearance of the growth must be looked for at the time, but in the course of a few days a crust will form and come away, leaving in its place a slight scar, which constantly tends to become thinner and fainter. When the pigmented moles have hairs in them, they must be destroyed by a fine needle attached to the negative pole, introduced into the hair follicle until

the hair comes out with very slight traction. This is generally much more painful, for while the moles themselves are not at all sensitive, the hair follicles are, and a correspondingly weak current must be used.

CLINICAL LECTURE.

THE USE OF BENZO-NAPHTOL WITH BISMUTH SALICYLATE IN THE TREATMENT OF THE SUMMER DIARRHEAS OF YOUNG CHILDREN.

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ALTHOUGH not a professed pediatricist, it has fallen to my lot to see a sufficient number of cases of various forms of intestinal disturbance in children, especially during the hot weather, to have warranted the formation of an opinion concerning the proper method of treatment to be pursued in such cases. It has appeared, in so far as personal experience is concerned, that many of the nosologic divisions and refinements of diagnosis, which find place in the text-books and monographs, are of little practical account at the bedside. Whether the inflammation in a given case be confined to the colon or involve the ileum, whether it be intestinal only, or gastric as well, has seemed to be a matter of entirely minor importance. Indeed, the use of nomenclature involving the idea that the local inflammation was the important pathologic factor in the complexus of morbid phenomena presented, has seemed to be a survival of the errors impressed upon the profession by Broussais and his school. It is undoubtedly true that local morbid processes are present and of importance, and that if these proceed unchecked, inflammation so serious as to become in itself a source of danger may be produced; yet in the majority of cases in which infants or children present symptoms of disturbance of the alimentary canal, the local phenomena are those of irritation rather than of structural change, and the systemic phenomena those of intoxication chiefly. Thus, the apparent site of the local phenomena may change in the course of the case as the irritating materials change their position, and the same case successively appear to be one of gastritis, of enteritis, of ileocolitis, and of colitis, if we are to hold to the received nomenclature. For this reason the old terms cholera-infantum and summer diarrhea seem to me more expressive and less erroneously exclusive than the others mentioned; the former term being applicable to cases of severity, and usually attended with vomiting as well as purging, the latter to those of milder character in which purging is the main feature. But the question of nomenclature is of importance only as a name serves to recall a defined group of morbid associations; and the prerequisite to successful treatment of the classes of cases referred to is as clear an idea as possible of their origin, mechanism, and course.

¹ Therapeutic Talk, delivered at the Philadelphia Polyclinic Hospital.

The causation seems to be complex, involving nervous influence, mechanical irritation, bacterial infection, toxin absorption. The nervous influence depends on temperature; that is to say, the local circulation is injuriously affected, probably partially paralyzed, either by the heat of the weather, or by the injudicious administration of cold, often ice-cold water.

There is no doubt that the judicious use of cool water, internally and externally, aids in preserving the health of infants during the heated term, but it is a matter of common observation to find painful or spasmodic disorders of the alimentary canal caused by the sudden chilling due to the rapid ingestion of ice-water both among children and adults. Sucklings escape this danger, at times, because they are less inclined than older children or adults to "gulp" down a large quantity of cold fluid at a single draught. If cool water rather than ice-cold water be employed, and a small quantity held within the mouth, cooling its mucous membranes and at the same time being raised more nearly to body-heat before entering the stomach, this particular etiologic factor may be eliminated.

Irritation may be due to the mechanic or chemic qualities of the food ingested or to its contamination with microorganisms. Even when the food itself is harmless under ordinary circumstances, it may irritate a stomach or bowel depressed in function by the excessive temperature, or chilled by iced water. Want of scrupulous cleanliness as to bottles and nipples, cups and spoons, is frequently found to be a cause of septic contamination of food, even among families in which it would not be suspected; a fact that excuses the mention of a factor so well recognized. Milk or meat juice may contain noxious products of decomposition or bacterial action, even when there is no evidence of this given to the senses, and despite the fact that the milk has been pasteurized or sterilized. So too, with artificial foods, which, though perhaps sterile when put up, easily become unfit for use by exposure to the air and to moisture after the packages are opened. In connection with the latter preparations still another source of contamination exists, namely, the use of unboiled water in cities which, like Philadelphia, are supplied with diluted but unfiltered sewage for drinking purposes.

Whatever then, the character of the food that is being given to an infant or child presenting symptoms of gastrointestinal disturbance, save only in the case of infants suckled by healthy mothers or wet-nurses, it should be changed immediately; and this, whether or not the exact source or nature of its unfitness can be discovered. The sickness of the child is a demonstration of such unfitness by *experimentum crucis*. No other is needed.

The alimentary canal should at once be cleansed of irritating and toxic matters. If this can be accomplished by the administration of a mild laxative, calomel in small doses, or castor oil and aromatic sirup of rhubarb, without lavage, it is better to avoid the passage of a stomach tube. I say this after sufficient personal experience with both methods. If, however, vomiting is marked, action urgent, and medication ineffective, the stomach should be washed with warm water (100° F.) and sodium borate or sodium bicarbonate, one dram to the pint. If desired, a

bismuth mixture may be introduced through the tube before the latter is withdrawn. I have had no experience with this procedure. To cleanse the bowel a high enema of warmed normal salt solution is usually the best method. When, however, the laxative has acted promptly and satisfactorily, this may often be dispensed with. As a rule, I prefer, over mercurials, a mixture of equal parts of castor oil and aromatic sirup of rhubarb, sometimes with the addition of a few drops of paregoric. It is not unpleasant to take, is mild in action, and there is a desirable astringent after-effect. The dose should be in accordance with the age of the child; an infant of six months will take about a teaspoonful of the mixture, repeated if need be, once or twice, at intervals of one or two hours; a child of two or three years will take about a dessertspoonful; a child of seven to ten years, a tablespoonful.

After the bowel, and, if need be, the stomach, have been cleansed, I have found nothing more satisfactory to soothe and disinfect the alimentary canal than a powder, the use of which I first reported in THE MEDICAL NEWS for July 28, 1894, p. 97.

My own experience has been confirmed by that of many friends who have from time to time communicated with me. It consists of benzo-naphthol (benzoyl-beta-naphthol) and bismuth salicylate, usually in equal parts, with or without the addition of Dover's powder. The dose is regulated rather by the size of the powder, that is, the child's ability to swallow it, than by the quantity of active drug, except as regards the opium, which varies with the age of the child and the severity of the case. A child of six months can usually swallow three grains of the powder, say one and a half grains each of benzo-naphthol and bismuth salicylate, and some can take much more. When a sufficient quantity to produce the desired effect cannot otherwise be given, a dose of even five grains of each constituent may be divided into manageable portions (perhaps a little sugar of milk added, though this is rarely necessary) and given at intervals of ten minutes, more or less. The dose for an adult is about five grains each of bismuth salicylate, benzo-naphthol, and Dover's powder. It is the combination, not any one constituent that is effective. The intervals between doses vary from two to four hours, at first, and are prolonged afterward in accordance with the improvement in symptoms. Since resorting to this treatment I have not had to use chalk-mixture, or soda and rhubarb, or other mixtures of that kind.

It is important, however, to stop milk-feeding during the active treatment. Barley-water in small quantities is the best diet for two or three days. After that, freshly prepared meat juice, an unobjectionable proprietary food, Pasteurized milk, or even boiled milk may be used, under proper precautions as to cleanliness, physical and chemical. I have found the intermission of milk diet (or other food) the most difficult matter to enforce, not only upon mothers, but often in consultation cases upon the attending physician. Yet it is a factor of the highest importance in treatment. Children will do much better with no food whatever, than if food which readily decomposes or yields toxins is placed in an alimentary tract where all the conditions are favorable to such transformation.

The usefulness of the medication proposed seems to be that it assists in the return to normal conditions, so that food may again be safely taken.

Another error, against which it is necessary to utter a word of warning, is the practice of administering an opiate or an astringent, such as logwood, kino, or tannic acid, before the alimentary tract has been cleansed of offending, irritating, poisonous materials. The frequent stools are evidences of nature's efforts to get rid of these matters, and the physician who injudiciously locks them up in the bowel by his drugs aids the disease rather than the patient.

To sum up then, the proper line of treatment is rest, fresh air, cool bathing or sponging, cleansing of the alimentary tract, intermission of food liable to decomposition or fermentation, the administration of cool water and barley-water in small quantities, the water having been boiled and filtered when necessary, and medicinally the use of a sedative and antiseptic mixture, for which purpose benzonaphtol and bismuth salicylate, with or without opium, are of great use. In cases of severity, approaching collapse, hot bathing, external application of heat, and the use of strychnin in appropriate doses, may be additionally necessary.

I have as yet said nothing concerning alcohol. It is often of use, in small quantities, and may well be given with the barley water; but there are many cases in which it is unnecessary, and the decision is a matter of good judgment in the individual case. I, at least, can formulate no general rule.

CLINICAL MEMORANDA.

A CASE OF TRAUMATIC RUPTURE OF UTERUS, WITH LACERATION AND STRANGULATION OF SMALL INTESTINES; OPERATION; RECOVERY.

By C. S. VAN RIPER, M.D.,
OF PATERSON, N. J.

THE following case is reported with a two-fold object: Because it is, in its nature, circumstance, and result, unique; and because it may serve as a warning to young practitioners of the danger attendant upon the rash use of "Goodell's Cervical Dilator" in the unimpregnated uterus.

On June 9, 1894, in the evening, I was consulted by a physician, who informed me that he had a patient, thirty years of age, multipara, her youngest child being twelve months old. She had been suffering with slight vaginal hemorrhage for the previous month, but gave no history of the usual symptoms of tubal pregnancy. He, supposing it to be due to polypoid degeneration of the endometrium, had an assistant etherize her, with the object of performing a curettage. The patient being under ether and placed in position, he introduced a sound, which, he informed me, passed into the uterine cavity about six inches. He, supposing from this circumstance that she was pregnant and would abort, thought it would be best to remove the fetus at once. He then introduced "Goodell's Dilator" and,

as he supposed, dilated the cervix, there being, as he remarked, "considerable hemorrhage." After the dilation he at once introduced a placental forceps, grasping what he supposed was fetal membrane, and proceeded to remove it. After repeating this several times, he found that he had been dragging down and tearing the intestines. He immediately informed the husband that the case was of too complicated a character for him to handle, and advised her immediate removal to the Paterson General Hospital. On my arrival at the Hospital the patient was in a condition of extreme collapse. Temperature was $97\frac{1}{2}^{\circ}$; pulse 140, small and compressible; respiration 24; abdomen greatly distended; tympanitis over median portion; modified dulness over each inguinal region; discharge of blood from vagina; extremities cold, and patient extremely irritable and nervous. Morphine sulph. ($\frac{1}{4}$ gr.) was administered hypodermatically, and she was then rapidly prepared for abdominal section. At 9 P.M. a median incision, extending from just below the umbilicus to pubes, was made. Abdominal cavity contained a large amount of clotted and fluid blood, which was flushed out with repeated washings of normal saline solution, when a mass presented itself, consisting of omentum, intestines, uterus, and appendages, closely matted together. I then found that a rent existed in the anterior wall of the uterus, extending from near the fundus through the cervix into the vaginal vault, and that in the fundus, near the juncture of the right tube with the uterus, but somewhat above same, was a perforation, through which had been drawn the intestines, morcellated by forceps, and now held completely strangulated by the band of uterine tissue, which existed between the upper boundary of the tear and the perforation.

This perforation in the fundus of the uterus had been undoubtedly caused by the passage of the sound. The placental forceps, following the course taken by the same, passed into abdominal cavity, grasped and drew the intestines through this perforation into the uterine and vaginal cavities. The expansion of the dilator undoubtedly caused the rupture of the anterior wall of the uterus, this tear being somewhat to the right of the median line. In the right tube, at the juncture of the outer third with the inner two-thirds, was a mass about the size of a hen's egg. Whether this had been occasioned by the trauma to the parts, or was a preëxisting condition, is hard to say. Probably, however, it was the former, as an examination later proved it to be a simple hematocele, the blood partially coagulated. The intestine, with a portion of omentum, was found to be so thoroughly strangulated in the aperture in the fundus that I was compelled to divide the band of uterine tissue between the laceration in anterior wall and the perforation, to relieve the incarcerated viscera. The latter were then wrapped in a moist napkin and laid on the upper portion of the abdomen. After a careful examination of the uterus and appendages, I deemed it advisable, owing to the greatly contused and lacerated condition of the parts, to at once remove them. This was accordingly done in the usual manner. The bladder and peritoneum had been completely dissected off from the anterior wall of uterus, evidently occasioned

by the blades of dilator, which, after rupturing the uterus, had slipped out and glided along its anterior surface, thus dissecting it free from the bladder, contusing the posterior wall and fundus of that viscus. Upon removal, the uterus was found to be normal in regard to depth of cavity and character of its walls. All hemorrhage from the pelvic viscera was now entirely controlled. Left tube and ovary normal. Attention now being devoted to the intestine, I found that the injured portion comprised twenty-six inches of the jejunum and a portion of the omentum. The lower sixteen inches had been badly crushed and minced by the forceps—so much so that in parts only a shred existed of the entire lumen of the gut; a segment of mesentery was also badly torn. I then decided, notwithstanding the extremely critical condition of the patient, to resect the portion of strangulated intestine. The Murphy's button at hand proved too large for the intestine. Its use was accordingly abandoned, and end-to-end anastomosis resorted to. The mesentery having been ligated by means of the catgut chain ligature, the two ends of intestine were brought in apposition by a continuous suture, including in the stitch the peritoneal and muscular coat. This was then fortified by a row of Czerney-Lembert stitches, including only peritoneum. The stump of mesentery was also entirely covered by peritoneum. Operation being thus completed, intestine was dropped back into abdominal cavity, which was then thoroughly flushed out with normal saline solution, leaving the cavity filled with it. Abdominal wound was closed by means of silkworm-gut sutures, passing through the entire thickness of wall, including the peritoneum, and binder snugly applied. Patient returned to room, placed in bed with foot well elevated, and a large enema of normal saline solution given, which was retained. Convalescence was uninterrupted by any complication save a cystitis, which developed a few days after the operation, undoubtedly as the result of the injury by dilator to the posterior wall of bladder. This trouble was readily relieved by daily lavage of the bladder with boracic acid solution. She left the hospital, in good condition, on July 30, 1894.

At the present time—eleven months after the operation—the patient is apparently in perfect health, the cystitis having entirely subsided, as has also the vaginal discharge. There were present at operation: Doctors McCoy, Blundell, Goodrich, Harris, and Neer. The intestine excised was measured by Doctors McCoy, Blundell, and Goodrich.

A CASE OF HEMATEMESIS.

By A. L. BENEDICT, M.D.,
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It is not customary to report cases in which the diagnosis remains obscure and in which therapeutics has failed. The following case, however, is one in which so many questions of interest center that I wish to present it, with the hope that someone's experience may give a probable answer to the questions that an autopsy alone could have settled beyond dispute:

About three months ago I was called in consultation to

see Mrs. H., aged seventy, but apparently sixty, who had been ailing for some months, the symptoms being referred to the stomach, though vomiting had not been marked, and the indigestion was not greater than is often noted in dyspepsias secondary to anemia, malaria, and other conditions of vital depression. The patient was large and fat still, though relatively emaciated, the skin lying in folds about the shrunken arms and legs. There was no dropy and nothing of significance in the condition of the heart, lungs, kidneys, etc., according to the examinations made previously by the attending physician, Dr. S. A. Dunham.

Between the left lobe of the liver and the stomach, Dr. Dunham had discovered a mass, which I, at first, took to be the ribs and cartilages, but which a more careful examination showed to be on a lower level. This projected from beneath the left costal arch, and had an area of about one inch by two and a half. There was considerable tenderness in the middle of the epigastrium, but not to any marked degree over the mass. This mass did not seem to me to be a neoplasm; it was smooth and, except that its convexity was somewhat greater than that of the normal left lobe of the liver, it did not seem to differ from the palpable part of that organ.

An appointment was made to remove the stomach contents after a test meal on the following day, but, being unable to leave the house for several days, I failed to make this examination. Hydrochloric acid was recommended, there being considerable fermentation and belching of gas. About three weeks from the time of the first examination I was asked to see the patient again. At this time the stomach and liver were more accurately mapped, though the results did not differ materially from those previously obtained. The stomach reached as low as the upper border of the umbilicus, and an area, one inch in transverse and three in vertical diameter, lay on the right side of the median line; thus, there was slight dilatation, but not enough to warrant a diagnosis of obstruction at the pylorus. Neither the right nor the left lobe of the liver could be distinguished higher than the fifth intercostal space, while the right lower border did not extend quite to the costal arch—the right lobe should be found by auscultatory percussion or by heavy ordinary percussion from the fourth rib to the costal arch. The palpable mass answered to the resonance of the liver, not to that of the stomach; that is to say, percussion over it was heard when the stethoscope was held over the liver, but only very distantly when the stethoscope was moved to the gastric area. I have reported a case of hepatic carcinoma in which the cancerous mass, though intimately connected with the liver, did not vibrate so that percussion over it could be heard through a stethoscope held over the right lobe of the liver, and, in general, I believe that a structure which is of different character from the organ with which it is anatomically connected, will act as a separate organ on examination by auscultatory percussion. For example, a lung will ordinarily conduct vibrations from any part of its superficial area, but if a lobe is consolidated, it will not vibrate in unison with the rest of the lung, and will, therefore, be marked off by auscultatory percussion as a separate organ.

The patient seemed unchanged since my first visit, except that she complained of some difficulty in swallowing. Her daughter thought that there had been some loss of flesh. I was not able to satisfy myself whether the dysphagia was mechanical, or whether it was only apparent from a growing distaste for food. An appointment was made to examine the stomach contents on the following day, but Dr. Dunham was unable to keep the appointment. It was learned later in the day that the patient had died at about the time set for the examination, there having been a hemorrhage from the stomach and a tarry stool. If the passage of the tube and withdrawal of the stomach contents had not been providentially prevented, it would have been difficult to have convinced even ourselves that our interference had not been the cause of death. I recall a similar coincidence—not in my own practice—in which a patient died shortly before the time set for an operation under chloroform. If the operation had been begun, death would certainly have been ascribed to the anesthetic.

The possibility of a relation between the examination on the day previous and the hemorrhage must be considered. Palpation was not forcible, and the percussion used in connection with a stethoscope is the very gentlest tapping with a single finger. Except that the patient was assisted a few inches nearer the edge of the bed, she was put to no inconvenience from change of posture, nor was any more tenderness elicited than is often encountered in the examination of abdomens which prove to be perfectly normal. If the hemorrhage is to be ascribed to any part of the examination, it must be to the gentle palpation of the tumor.

Regarding the exact position and nature of the tumor, there is a difference of opinion. Dr. Dunham's original, tentative diagnosis was of pyloric cancer. This was disproved by the absence of palpable tumor in the proper locality and by the absence of any such degree of dilatation as would be compatible with actual stenosis. Considering the development of dysphagia and the fatal outcome, his later diagnosis of cardiac gastric cancer has much to support it. Relying on the results of auscultatory percussion—and here there may be a fallacy, on account of lack of sufficient experience upon which to base a positive opinion—and regarding the mass as properly a tumor, my idea was that there had been an extension of a hepatic cancer to the cardiac end of the stomach, but that the cardia was not involved, except by the growth of the cancer. There are, however, some objections to the diagnosis of carcinoma. It is rarely the case that a cancer reaches the stage of fatal hemorrhage without previous demonstrable oozing of blood or without marked cachexia. Yet the patient, though reduced from her weight in health, was still fat, her illness had not been particularly painful, there was no obvious metastasis of the growth, there was no jaundice, the liver was small, rather than large, the complexion was not only not cachectic, but was clearer than usual, considering the patient's age. I am inclined, therefore, to set aside altogether the diagnosis of carcinoma and to consider the case as a hematemesis, due to rupture of blood-vessels in the lower part of the esophagus or the cardiac portion of the stomach, the ulti-

mate cause of the rupture being an obstruction to the portal circulation. There were no marked signs of either cardiac, vascular, or renal disease; the spleen was not palpable. For the sake of disturbing the patient as little as possible, the back was not examined, so that there may have been, and very likely was, a moderate splenic enlargement. The liver was distinctly, though not much, contracted—a condition which, in the great majority of cases, indicates sclerosis. The tumor had not the irregular feeling of a cancer, and it did not seem to extend to the stomach, the lower border being apparently distinct. Its exact nature I do not pretend to state, but it seemed to be a somewhat enlarged left lobe.

Paul Friedrich, in an article on "Varices of the Esophagus," translated for the *Medical and Surgical Reporter* of January 25, 1895, has collected a number of cases of esophageal varix, all due to what, in a general way, may be considered hepatic cirrhosis. The slight dilatation and probable catarrh of the stomach, with the symptoms of subacidity, fermentation, anorexia, etc., may all be explained on the ground of a predisposing hepatic sclerosis. External evidences of portal obstruction are not necessarily presented, especially when the patient has been resting in bed for some time. Dysphagia, though not mentioned by Friedrich, is somewhat characteristic of varicose veins of the esophagus. There was nothing in the appearance of the patient a day before her death to warrant so grave a prognosis for the near future, and this fact alone is not only a point against the diagnosis of cancer, but is characteristic of esophageal varix. Friedrich, speaking not of the underlying hepatic condition, but of the varix, states that the only prominent symptom, and often the only symptom, is the hemorrhage. Thus, unless the first hemorrhage is recovered from, there is absolutely no warning of the critical condition of the patient, even a few hours before death. The treatment would be on the general lines of an endeavor to check hemoptysis or hematemesis. The prognosis—perhaps in the present state of ignorance, metagnosis would be a more appropriate term—is grave. The case is especially interesting with regard to the proposed passage of the stomach-tube. Its use was certainly indicated in order to throw light on the case, yet the result of such manipulation, viewed from the present standpoint, would have been truly awful. Everyone, from the man whose prudence amounts to cowardice to the one who regards radical and scientific investigation as of paramount importance in any case, can draw the moral to suit his own views. The writer feels sure that he has prolonged life by the use of the tube, when subsequent events have shown that danger must always have been imminent from its use. Comparing such cases and the one here cited, the indication is for a mingling of caution and boldness. It is to be regretted that an autopsy could not have been secured in the present instance; but, whether the case was really one of esophageal varix or not, there is sufficient resemblance to that almost unrecognized disease to warrant using the facts and speculations which are contained in this article to call attention to a problem of diagnosis which we ought to learn to solve before death.

SPECIAL ARTICLE.

THE STERILIZATION OF HYPODERMIC AND OTHER SYRINGES BY BOILING.

BY CHARLES A. POWERS, M.D.,
OF DENVER, COL.

HOWEVER simple and efficient may be our present aseptic technic, there yet remain many minor details in which our methods fail to give entire satisfaction. We have hitherto been unable to sterilize injection syringes in which the piston and washers are made of leather. This difficulty is now, however, happily overcome by Hofmeister of Tübingen, who, in the *Centralblatt f. Chirurgie*, July 4, 1896, sets forth a method by which we may render these important instruments, absolutely aseptic.

His procedure rests on the principle that leather may be boiled at will in plain water after previous hardening in a formalin solution. The plan is as follows:

1. Only such syringes may be sterilized as consist of glass, metal, and leather. The metal parts must be united by solder or screws, rather than by cement.
2. The piston and washers are removed and freed from lubricating fat by ether.
3. They are then placed in a two to four per cent. formalin solution for twenty-four to forty-eight hours.¹
4. After the formalin has been washed off, the syringe may be put together and is then ready for boiling.
5. All air should be removed by working the piston back and forth while under water; the syringe may then be boiled at will in plain water (thirty minutes should suffice).

I have thoroughly tested this procedure on a number of hypodermic, exploratory, and aspiration syringes, and can verify Hofmeister's statements in every particular.

Apparently the only change which the leather undergoes is a darkening and a slight thickening. Previous to immersion in the formalin solution, it may be well rubbed with gauze, dipped in ether, and after sterilization, it is to be again lubricated with sterilized oil. If the piston consists of two pieces of leather separated by an oil-space, I have found it well to insert the first of these in the glass barrel before boiling. A moderate swelling of the leather may necessitate trimming its edge with a sharp knife.

I have put an ordinary hypodermic syringe through this sterilization process four times, at intervals of two days, without apparent change in the leather. What its limitations are as regards repetition, time will determine. It may be that the leather will have to be removed from time to time. However, this may be, there are so many sources of infection in these syringes (exploratory aspiration of pus, for instance), and absolute asepsis when making injections is so much to be desired, that I am certain that this simple procedure will find wide employment.

¹ I have used a four per cent. formalin solution for twenty-four hours.

MEDICAL PROGRESS.

Pneumothorax Cured by Operation.—UNVERRICHT relates in the *Deut. med. Woch.*, for May 28, 1896, a case of "pneumothorax acutissimus" occurring in a young man aged twenty-three. The patient had been under treatment for some months for pulmonary tuberculosis. A sudden attack of pain in the left side and great dyspnea indicated pneumothorax, which the physical signs vaguely confirmed. The great mobility of the inserted hollow needle and the escape of air through it, when submerged, made the diagnosis sure, and a permanent fistula was established in the sixth intercostal space. The dyspnea was at once relieved. There was a considerable discharge from the wound of a purely serous character. This rapidly diminished, and in twelve days the fistula had closed, and all physical signs of pneumothorax had disappeared. The tubercular process spread, however, and by a strange fate, the patient died two months later with pneumothorax of the opposite side. The autopsy showed extensive tuberculosis of both lungs with cavities. There was marked right pneumothorax, but on the left there was no indication of the preëxisting pneumothorax, or the operation for it, excepting some slight adhesions.

This treatment is advocated in cases in which it is reasonable to suppose that the lung is distensible; and in all cases of pneumothorax acutissimus when immediate death from dyspnea is threatened.

Pain in Chronic Aortitis.—DURR (*France Méd. et Paris Méd.*, 1895, No. 32) points out that the existence of deep-seated retrosternal pain is often the diagnostic symptom of chronic aortitis. If the pain shoots in any direction, the presumption is that the disease has spread beyond the aorta, e.g., into the coronary arteries, with symptoms referable to the heart muscle, or into the branches of the aortic arch with pain in the head or arms.

An anxious feeling, unaccompanied by respiratory disturbances, is characteristic of chronic aortitis; but the two absolutely pathognomonic symptoms are (1) an extension of the cardiac dullness in the second intercostal space to the right of the sternum, indicating an increase in the transverse diameter of the aorta; and (2) a filling up of the right intraclavicular fossa—the result of an increased length of the aorta. Of secondary importance is any change in the character of the second heart sound, for this depends on alteration of the valves, which is not a necessary concomitant to aortitis.

A Still More Extensive Breast Amputation.—TANSINI (*Rig. Med.*, April 5, 1896) holds that in the attempt thoroughly to remove all lymphatic glands, which may possibly have become involved, secondary to cancer of the breast, recurrence in the skin has been overlooked. He calls attention to the frequency of recurrence of this sort in the form of isolated nodules in or near the scar. In order to avoid such recurrence, he removes the overlying skin of the whole breast, and a strip about four inches wide from the breast into the axilla. To cover the defect, a flap is dissected from the back, with its pedicle near the axilla, and stitched in position over the wound.

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SATURDAY, AUGUST 22, 1896.

THE END OF QUACKERY IN BELLEVUE HOSPITAL.

DURING the past two months there has been carried on in Bellevue Hospital by the Commissioners of Charities, bound by oath to administer the charity hospitals of the municipality to the greatest benefit of the suffering sick, such a piece of quackery against its patients, and thereby there has been offered such an insult to the medical profession and the intelligent members of the community as we hope we shall never again have occasion to witness.

We now chronicle with becoming satisfaction the demise of the "drink cure" experiment. We hope soon to be able to furnish our readers a full account of the obsequies which the Commissioners are giving the corpse. The NEWS takes to itself no little satisfaction for the part it has taken in pricking this little bubble of the Commissioners. It brought to light the true inwardness of the undertaking by its discovery and exposure of the fact that the "cure" was backed by an incorporated, capitalized company. The consternation of the Commissioners occasioned by this exposé

was such that the NEWS believed they would see the error of their way and immediately discontinue the experiment. But they have seen fit to persist in their arbitrary course, and in spite of the repeated admonitions of those who could foresee the result, they have continued in their insane efforts until they have made themselves not only ridiculous, but infamous. Now they have no credit and no thanks from anyone for the cessation of the experiment. "The cure has succumbed from natural causes," so say the Commissioners, and they are desirous of burying it without an autopsy. Monsters and abnormalities of all kinds interest, however, and we purpose looking into the immediate cause of dissolution in this case.

For the past month the spurious visiting physician to Bellevue Hospital has been very direllect in his duties; in fact, for two successive weeks of that time he did not favor the institution with his presence. During this period, the spacious hospital wards, which had been placed at his disposal, were useless, and the suffering sick were excluded, and that, too, at a time when the heat was the most trying and the demand for succor the greatest. To the shame of the Commissioners, be it said, that during a crisis that called for instantaneous and unequivocal action, they remained as impassive as though they themselves had been seized upon by the *rigor mortis* that had already laid hold of their darling foster child—the subsidized drink cure. Even the Warden of that institution, he who spoke from the depths of personal medical wisdom two days after the "cure" was instituted and proclaimed it "a Godsend," when informing the President of the honorable board of Commissioners of Dr. Oppenheimer's direllection frankly confessed his inability "to comprehend the situation in its present advanced form."

Even though the Commissioners hesitated at this juncture to revoke the privilege granted the owner of a secret remedy, they might still have sought and found escape from their predicament by enforcing a law of their own making, that all visiting physicians shall visit the Hospital at least three times a week. The ostensible reason for this delay was the desire to give the individual

Commissioner, who had stood sponsor for the experiment, an opportunity to prepare a report substantiating, as far as possible, his advocacy of an experiment which he and his fellow Commissioners knew in their inner consciousness was utterly futile; for failures, and numbers of them, are within their personal knowledge. The real reason, however, which they endeavor to conceal, was the hope that the *MEDICAL NEWS*, and others of their critics, would tire of their onslaught upon them, and when the subject had ceased to figure in the eye of the public, they could slip out of their unfortunate position without observation or comment.

Now, however, we call upon the Commissioners of Charities to put upon record their opinion of the pitiable and ignominious failure of their first effort in experimental medicine, and insist that it shall be couched in such language that, at least, he who reads between the lines, may detect their sincere sorrow and regret for their conduct. If they do not do this, we shall feel, so long as they remain in office, that being dominated as they now appear to be by their impulses and emotions, we shall not be secure from future trials of whatever silly fad they, their families, or their advisers may happen to embrace, whether it be Christian science or the Kneipp cure.

The real shortcoming in the present Board of Charities Commissioners is that they are boys in reality, although the Mayor would have us believe that they are "boys" only by his face-tiousness.

ELECTRIC CURRENTS AND COMFORT.

EVER since the earliest discovery of electricity as a force, it has been a favorite popular theory that it was closely related in some way to "vital force," if, indeed, it was not a form of it. And to this day the general impression among the laity is that simply to charge the body or any part of it with electricity is to "fill it with new life," and that any belt, battery, or even hair-brush, which will give off electricity to the body is supplying it with force which can be directly used in its processes. Stories are told with bated breath of dead men brought to life by electricity and enabled to walk, talk, eat, etc., as long as the cur-

rent was kept up; much as in the rural districts the belief obtains that dying men can be kept alive for hours, or even days, "onnaterally" by pouring frequent doses of whisky down their throats. Indeed, we are sometimes gravely asked whether the "vital spark" is not really electric!

That this implicit childlike confidence in the virtues of any form of the current is responsible for many of its most brilliant therapeutic triumphs, can scarcely be doubted; indeed, it is a question whether at least half its reputation as a remedial agent is not due to the vivid expectancy which it excites in the minds of our patients.

Great and genuine as are the therapeutic effects of the current, yet outside of electrolysis and certain nerve and muscle results, we are quite in the dark as to how they are produced, and any developments, however slight, which point in this direction are of interest. Dr. Augustus Waller has been conducting experiments of late upon infusoria and other floating organisms with this problem in view, and obtains some curious results. If a current be passed through a solution containing paramnesia, the whole group of organisms is at first greatly disturbed, but shortly they begin to swim steadily toward the cathode in converging lines. If the current is now reversed, they promptly "right about face," and begin swimming toward the new cathode. Evidently they are more comfortable swimming with the current than against it. Other microorganisms tend to swim against the current, and others at right angles to it, but all are definitely and markedly affected by it. The same was found to be true of larger and more complex organisms—for instance, tadpoles, a group of which is at first thrown into wild commotion by the current; and when this subsides, is found to be arranged with the heads of all its members pointing toward the positive pole, letting the current pass through them from head to tail. A very weak current will produce no apparent effect upon tadpoles lying "head on" to it, but will cause those lying at right angles to wag their tails about. Is it possible that the soothing and pain-relieving effects of the constant current, and especially of a discharge from a "static" machine, may be due

to a similar effect upon the fixed cells of our bodies, and that the popular belief that beds should be arranged so that we can sleep with our heads pointing north, and allow the polar currents to pass through our bodies lengthwise, may have some shadow of scientific foundation?

ECHOES AND NEWS.

Meeting of the Tri-State Society.—The eighth annual meeting of the Tri-State Medical Society of Alabama, Georgia, and Tennessee, will be held in Chattanooga, Tuesday, Wednesday, and Thursday, October 13, 14, and 15, 1896.

Annual Meeting of the Academy of Railway Surgeons.—The third annual meeting of the American Academy of Railway Surgeons will be held at Chicago, in the Auditorium, on Wednesday, Thursday, and Friday, September 23, 24, and 25, 1896.

Suffering in London.—A serious shortage in the water supply of this great city is reported both by the lay and medical press. From these it is hard to determine whether the increase of mortality in the eastern districts of the city is due to this cause or not, but it is generally admitted that the amount furnished falls much below what is required for the comfort of the population, particularly the improvident and poorer classes.

A New Home for the New York Skin and Cancer Hospital.—The northwest corner of Nineteenth street and Second avenue is being cleared to make ready for the building to be erected for the Skin and Cancer Hospital. For fifteen years this growing institution has occupied No. 234 East Thirty-fourth street, which has now become altogether inadequate. The new hospital is to contain all modern improvements, including a most complete system of baths, and will be erected within a year, at the cost of \$80,000.

Changes in King's College.—Professor Lionel S. Beale has severed his connection with King's College, London, in which he occupied the chair of medicine. He also resigns the office of physician to King's College Hospital. Professor F. Jeffrey Bell, after seventeen years of distinguished service as professor of comparative anatomy in the same institution, has also resigned. The Council of the College have appointed Dr. Burney Yeo to succeed Dr. Beale, and Professor Curnow to occupy the chair of clinical medicine made vacant by the death of the late Sir George Johnson.

Organization of Opticians.—The opticians of Pennsylvania are endeavoring to form a State organization with the following objects: First, to elevate and advance the profession and the mutual intercourse and benefit of its members; second, to encourage opticians to perfect themselves in the study of optics and the scientific adaptation of lenses in correcting errors of refraction; and, third, to discourage the haphazard and indiscriminate sale of spectacles by irresponsible and ignorant persons. Is it

not probable that the opticians of Pennsylvania, in this endeavor to broaden the scope of their work, may be tempted to undertake duties for which only the trained oculist is prepared?

Defects of Vision Among English School-children.—In a report of the examination of more than 8000 children in the elementary schools of London, Mr. Brudnell Carter stated that thirty-nine per cent. were found to have normal vision in both eyes, and the same percentage had subnormal vision in both eyes. The remainder were defective in one eye, while its fellow was perfect. As to sex, there were ten per cent. more boys than girls with normal vision. Myopia was of infrequent occurrence, and, contrary to the experience of similar observers in the German schools, no increase in the per cent. of defects was discovered among children of the older than among those of the younger grades.

A Just Protest.—An appeal signed by more than one hundred physicians in the United States will be sent to the General Council of the International Red Cross Society, calling attention to the non-observance by Spain in the Cuban war of the stipulations unanimously agreed to at the congress held by the Society, in which Spain, as a nation, took part. It was at the conference specified that in all international or civil wars the hospitals, wounded men, surgeons, and nurses of the enemy, should be respected by the contending parties. Attention is called in the physicians' protest to the frequent mention made in Spanish official reports of the capture and destruction, by the Spanish troops, of the hospitals of the Cuban insurgents.

Painless Death for Incurables.—A popular discussion has been inaugurated by the sermon of a leading California minister, in which he advocated as a practice, the relief of the incurably ill or mortally wounded by speedy death. His suggestion has been met by strong opposition based upon the sixth commandment as a text. As the physician will find himself called upon to act in the capacity of judge as well as executioner in any such emergency, it is best to leave to his ethical sense and the dictates of his own conscience to determine just where his duty lies in each individual case. It is needless to say that no one would lightly assume such grave responsibilities.

Medicine as a Moral Agent.—Whereas formerly the sulky, stupid, or ill-tempered boy was commonly relieved of such distemper by the master's rod, it is now believed by a certain school of psychologists that with the judicious use of internal remedies his case is better reached than by this time-honored method of counter-irritation. A clearer insight would discover the salutary effects of a dose of castor oil in many instances. The writer once knew the wife of a physician who habitually administered purgative doses of calomel to her two little boys with the sole intention of improving their dispositions. No less an authority than Dr. Lauder Brunton has directed the attention of the profession to the fact that many quick-tempered persons are really victims of masked forms of gout or rheumatism,

and may be relieved by appropriate remedies which he has facetiously called *temper-powders*.

A Hygienic Sewing-Machine Treadle.—An improvement to the sewing-machine is announced, which will be joyfully welcomed by all of us who have working-women as patients. The old treadle, with its up-and-down movement of the entire limb, and wearying, cramping strain directly upon the muscles of the calf and front of the thigh, and indirectly upon the lumbar region, is to be abolished, and its place taken by a hanging platform, swinging pendulum-fashion. Upon this the foot rests easily and is swung backward and forward, the momentum being furnished mainly by the weight of the foot alone, instead of by that of the entire limb as before. The thigh remains almost motionless, and the economy both of effort and discomfort is most decided. Either foot can be used alternately or both together, thus giving relief from the monotony of the constant movement.

Nordau's Methods of Work.—Dr. Max Nordau's name was originally Dudfield, and Nordau was at first simply a pseudonym, which, with the consent of his father, he afterward legally assumed. He lives in Paris above a wine-shop, and here is his description of his modes of work: "I spend my days in paying visits to my clients and receiving visitors. In the intervals I attend to my journalistic duties, for I am the Paris correspondent of the *Vossische Zeitung*, of Berlin, and I also contribute to the *Frankfurter Zeitung*, writing on all subjects. It is not till after dinner, that is to say, at about half-past eight, that I sit down to my table to write my books. I then work till eleven o'clock, or midnight, as the inspiration goes. When I set pen to paper I am sure of the last word of what I am going to write as I am of the first. But I find it hard to sufficiently concentrate my mind at first, and the work of the first hour is about equal to the work of a quarter of an hour later."—*Literary Digest*.

Obituary.—In the death of Dr. Joseph Meredith Toner of Washington, D. C., on August 1st, the profession of America has lost one of its most distinguished members. For almost a half century he has made the influence of his energetic and magnanimous nature felt throughout its ranks. In 1871 he founded the Toner Lectures by placing \$3000 in the hands of trustees. By the proceeds of this at least two lectures, based upon original research, are annually secured. His library, containing many rare and valuable volumes, has been placed in the Congressional Library at Washington, where it is kept separate from the other books. Dr. Toner was born in 1825, graduated in medicine from Jefferson Medical College in 1853, and after two years settled in Washington City, where he has since been actively engaged. Dr. Toner served as president, and subsequently as trustee, of the American Medical Association; he was vice-president of the International Medical Congress in Philadelphia in 1876, and has occupied the highest positions of honor in many smaller associations. His contributions to medical literature show him to have possessed a mind naturally broad and philanthropic, which he had widely cultivated.

New Method of "Doctoring" Milk.—It has been discovered that milkmen in Bordeaux, France, were in the habit of using certain yellow powders to preserve their milk. M. Denigès succeeded in obtaining possession of three samples of this powder and subjected them to chemical analysis. "This analysis showed that two of the powders were composed wholly of neutral chromate of potash, that the third was a mixture of one part of bichromate of potash and two parts of neutral chromate, and that the suspected milk had been adulterated with the latter in the proportion of 0.30 gm. to the liter (5 grains to the quart). The alkaline chromates are powerful antiseptics, capable, even in small quantities, of retarding lactic fermentation if not of stopping it completely. But because of the pernicious action of these salts on the organism they ought to be completely excluded from food substances, and particularly from milk, of which many young children drink relatively large quantities. These chromate powders are sold in packages of 2 gm. (30 grains) each of which should suffice to preserve about fifty quarts of milk, which would correspond to 0.04 gm. (0.6 grain) of antiseptic to the quart, evidently a minimum proportion. But it is likely that the milkmen will be induced to augment this quantity, either because it is insufficient to preserve the milk during the high temperatures of summer, or in order to restore the color of the liquid, due normally to hemolitein, a yellow pigment, when it has been lessened by skimming the cream, adding water, or by inferiority of quality, and thus to cause a mediocre product to pass for a milk of greater value." Knowledge travels rapidly, and even American milkmen may not be above such practices. Let us hope that the inspector may be as canny.

CORRESPONDENCE.

"THE STRYCHNIA CURE OF ALCOHOLISM AND THE OPIUM HABIT."

To the Editor of THE MEDICAL NEWS:

DEAR SIR: Will you allow me a short space in which to disagree with Dr. C. L. Dana in his advocacy of "Strychnia Cure of Alcoholism and the Opium Habit." I could not but disagree had I read nothing but the title, because it implies the cure of a habit with a drug.

A habit is an ingrained quality of the organism, a result of more or less prolonged impress of the different factors of the environment of that organism. It might be said to be a natural state, however artificially produced.

Alcoholism is a state of the nervous system produced by the use of alcohol through a long period of time, and most often through more than one generation. It is a nervous system so accustomed to the stimulating and sedative effects of alcohol that it can have no stability without its accustomed food. Indulgence in this habit is at the expense of all the individual's moral interests; all of his family, business, social, and religious interests suffer. If the individual can be made to understand this, and if he has any family, business, social, or religious ties, pulling him in the other direction, he may be cured. To

effect a cure he must understand that the responsibility is all his own.

While, of course, it is commendable in our profession; as in all others, to live up, as close as may be, to the never-say-die principle, and strive always to find a cure for everything, I think we may in this effort occasionally do harm. We certainly do harm when we lead inebriates to believe that they can be cured by drugs. What their appetites and longings require is a stimulant and a sedative, and to give them temporary relief with strychnia and bromids only leads them to believe that they can be cured without any exertion of their own. Only a few days ago I heard a young man say that he was not afraid to drink now, because he could take the Keeley Cure once a year and get straightened out again. Such perfect faith as this is not at all uncommon, and the flattery of imitation of the object of that faith by leading physicians and hospitals does not tend to weaken it.

My experience has been, and, I think, it will find substantial support in the experience of others, that an inebriate who still has some regard for family, social, business, or religious ties can be benefited if he can be made to understand the extent of the danger. Or, in other words, if he has anything left upon which to build appetite and desires stronger than that for the drug.

All inebriates are such through ignorance alone, and many among the better classes can be cured by making them see that all their better interests are in the gravest danger. This may be done by showing them that, even though they may not be ruined by it, at best it has a very bad effect on the stomach, liver, and nervous system, and that the appetite they build up is likely to be transmitted to their offspring. Those who are stupid and uneducated, or have no moral ties, such as we see most often in hospital practice, offer little encouragement in the hope of curing them. To give them a staff to lean on, it seems to me, is not the way to give them confidence in themselves, it gives them confidence in the staff, and therein lies the harm. Many of these having no family, social, business, or religious ties have nothing but their drink appetite to make life worth living. The attempt to cure these with a drug is just as rational as the attempt to cure the better class with a drug, and is to be commended more for courage than judgment.

Yours,

GEORGE S. BROWN, M.D.

BIRMINGHAM, ALA.,

August 11, 1896.

HYPODERMOCLYSIS IN THE TREATMENT OF THERMIC FEVER.

To the Editor of THE MEDICAL NEWS:

DEAR SIR: The season of the year and the recent universal experience of prolonged high atmospheric temperature, with the likelihood of more of the same to follow, will sufficiently explain my apparently premature communication.

On page 1132 of the American Text-book of Applied Therapeutics, I suggested, upon theoretical grounds, the

possible value of hypodermoclysis as an adjuvant in the treatment of some serious cases of thermic fever.

Recently, while temporarily in charge of the medical wards of the Pennsylvania Hospital for Dr. J. C. Wilson, I have had the opportunity to observe the effect of the measure in one case where its beneficial action was sufficiently marked to somewhat confirm my theory.

My reasons for thinking of the possible value of hypodermoclysis in these cases are, briefly, as follows: Thermic fever usually prevails after a high external temperature has persisted for at least three or four days. During these days the body has been losing much fluid through perspiration. Certain cases of thermic fever are, for a variable length of time after the reduction of temperature, in almost as grave a condition as before such lowering of body-heat was accomplished. Inasmuch as in a very large number of cases of thermic fever the symptoms rapidly disappear after reduction of temperature, there must be some factor other than the high bodily temperature alone, which continues to be present in those cases wherein improvement fails to follow the fall in the bodily temperature. If, in such obstinate cases, bleeding is performed, it is found that the blood flows very sluggishly from the vein, that it is thick and tarry, and that it is evidently lacking in its fluid portion. Such being the case, it seems not unreasonable to surmise that the persistence of coma, stertor, muscular rigidity, etc., may be due to the lack of water in the blood. Why some cases should suffer from this condition, while others escape, it is difficult to say, but careful inquiry might elicit some facts in regard to the amount of perspiration lost, the amount of fluid ingested just prior to the attack, and other features of the various cases that might throw some light upon this difference in course. Being quite imbued with the plausibility of this theory, I requested the Resident Physician to employ hypodermoclysis in this class of cases of thermic fever. Such a case occurred a few days ago in the person of a contractor, aged forty-eight years, who was brought to the Hospital from the Broad street station at 8.30 P.M., on August 12th. He was rubbed with ice on the way to the Hospital, in the ambulance, but on admission he was found to have a temperature of $109^{\circ}/^{\circ}$; pulse 154; respirations 33. He was unconscious, but not convulsed, with moderately contracted pupils and markedly stertorous respiration. He was at once put in a tub of iced water and given nitro-glycerin ($\frac{1}{16}$ gr.) hypodermically. After being in the tub for five minutes he was removed, placed on a bed, and was vigorously "ironed" with ice. At seven minutes after nine his temperature was $103^{\circ}/^{\circ}$; pulse 146; respirations 32 and irregular. At this time he began to have spasmodic contraction of the extremities. At 9.35 he became very cyanotic, the respirations became slow and labored, requiring, finally, the use of artificial respiration and the battery. At 10.05 his temperature had remained below 103° for some time, but there was marked twitching of the right side of the face added to the previous spasmodic contractions. The pulse at the wrist was imperceptible at this time. At 10.18 he was "fearfully cyanotic," and the jaws became rigidly fixed. He was bled from the median basilic vein to the

extent of sixteen ounces, immediately after which the respirations became more deep and quiet and the spasmodic twitching lessened. At 10.25 half a pint of sterilized normal salt solution was slowly introduced beneath the skin of the pectoral region on both sides. The pulse at once improved, and at 10.40 he became conscious and gave his name, while at about the same time the twitchings ceased.

Nothing further of interest has occurred up to the present time, the patient being thoroughly rational, perfectly comfortable, and showing no symptoms, save for slight elevation of temperature, that is easily accounted for by a quite severe glossitis that has resulted from a lacerated wound of his tongue, produced by his teeth during his period of pseudo-convulsions.

The case will probably be reported by the Resident Physician, Dr. J. C. Starbuck, in a future paper upon the cases treated by him during the summer. I have made this preliminary report in order to draw attention at once to an adjunct in the treatment of thermic fever, the action of which much impressed those who saw it used in the case here related, and in the hope that the use of hypodermoclysis may prove to be of value in this extremely obstinate condition sometimes present in thermic fever.

Should any of your readers employ the measure, I should be very glad to learn whether its further use bore out the theory above advanced, and confirmed the advisability of still further adopting this as a procedure of some value.

Sincerely yours,

FREDERICK A. PACKARD.

PHILADELPHIA, PA.,
August 14, 1896.

SOCIETY PROCEEDINGS.

BRITISH MEDICAL ASSOCIATION.

Sixty-fourth Annual Meeting, held in Carlisle, England, July 28, 29, 30, 31, 1896.

(Continued.)

THE SECTION ON MEDICINE.

FIRST DAY—WEDNESDAY, JULY 29TH.

On taking the chair, GEORGE F. DUFFEY, M.D., of Dublin, delivered a brief address in which he expressed his gratitude for the compliment paid, not so much to himself personally as to the "Irish School of Medicine" in selecting him as chairman of this Section. He indulged in a number of happy references to the early history of the Association, mentioning the name of William Stokes as indissolubly connected therewith. The Section, he said, was to be congratulated upon the interesting subjects which had been selected for its discussion at this meeting. From the beginning the attendance was large and intense interest was manifested.

The first subject presented was:

THE TREATMENT OF CARDIAC FAILURE.

This discussion was opened by an exhaustive speech from Sir Thomas Grainger Stewart, who first laid emphasis upon the great value of rest, and then referred to "hope" as an important factor in the treatment. He

next touched upon the usefulness of a well-ordered dietary in the management of cardiac disease. The treatment by systematic exercise and baths after the methods of Dr. Schott, at Mannheim, occupied the attention of the speaker for quite a time. In this connection two very excellent skiagraphs of the heart were exhibited, showing the position of the organ from in front and behind with singular clearness of detail. He then spoke of drugs and also considered paracentesis as more or less helpful in the management of severe cases. The chief thoughts of those who joined in the discussion centered about the question of the value of the Schott method, and while many, perhaps the majority, were emphatic in their expressions as to its undoubted value, others were deeply impressed with the disappointment they had found in its results. Dr. Herringham, in his remarks questioned the value of auscultatory methods in determining heart disease, which drew a reply from Dr. Besly Thorne. Dr. Leith thought the carbonic acid in the baths at Nauheim an important element of the treatment, while Drs. Liddell and Edgecombe claimed that the sulphur baths at Harrogate were quite as effectual as the Nauheim waters. Dr. Byrom Bramwell advised rectal feeding.

SECOND DAY—THURSDAY, JULY 30TH.

The Section opened promptly at 10 o'clock and without delay the chair called upon DR. FREDERICK TAYLOR to open the discussion upon

ANEMIA.

The author considered three distinct varieties of this malady—namely, splenic anemia, chlorosis, and pernicious anemia. He said a classification including the secondary varieties would involve too much detail, and would not be considered in the present discussion. Attention was directed to the occurrence of sclerosis in the spinal cord in cases of profound anemia which had been observed by Dr. James Taylor. Rest was recommended as the most important item in the treatment of chlorosis, while arsenic gave most favorable results in the pernicious form. Splenic anemia was really more common than was generally believed, and not infrequently mistaken for leucocythemia. An active discussion followed which was interrupted to witness a lantern demonstration by Dr. James Taylor, of the sclerotic changes in the posterior and lateral columns of cord that occurred in certain cases of profound anemia, and others by Dr. Ransom, showing in a series of slides the changes observed in the kidneys, liver, spleen, and intestines, and also the fact that in his experience the iron deposits in the liver were in the cells. The further discussion of this subject continued until almost two o'clock, and the want of time made it possible to hear only two other papers, which were presented without discussion.

THIRD DAY—FRIDAY, JULY 31ST.

TUBERCLE.

In the light of the deliberations of the Royal Commission on Tuberculosis, this subject had a peculiar interest, and was wisely selected as the chief topic for Friday's consideration. Dr. Moore opened with an exhaustive

paper, in which he seemed deeply impressed with the need for some measure whereby the great mortality from this disease might be reduced. He first dealt with the bacillary origin of tuberculosis, and then briefly considered the early signs of consumption. Next he considered the damage which tuberculosis does and the various modes of infection. Methods of prevention, hospital treatment, and the therapeutics of the disease received due attention. Finally the subject of compulsory notification was treated. On this point, Dr. Moore thought that, while compulsory notification of all cases was not feasible, yet voluntary notification should be encouraged, and that notification of death from tuberculosis should be compulsory. Dr. De Havilland Hall pointed out the importance of the removal of adenoids and hypertrophied tonsils; these, with the nasal mucous membrane, were the frequent sites of entrance of the bacilli. The good results of guaiacol were mentioned by Dr. Shingleton Smith. At the suggestion of the Chairman, a resolution was offered requesting the council of the Association to use its influence in impressing the Government with the necessity: (1) That provision should be made, at the public expense, for bacteriological laboratories by all sanitary authorities, where the sputum of patients suspected to be suffering from tuberculous disease may be examined and reported upon; and (2) that on the discovery of pulmonary phthisis in any individual of the poorer classes, public provision should be made for the treatment of such case in a public institution, provided for the purpose at public expense and by voluntary contributions. In speaking to this resolution, Professor Gairdner said: "The sooner that tuberculosis is looked upon as a plague, and treated as such, the sooner will the terrible mortality from it commence to diminish."

SECTION ON SURGERY.

FIRST DAY—WEDNESDAY, JULY 29TH.

THE SURGICAL TREATMENT OF PROSTATIC HYPERTROPHY.

by DAVID MCEWAN, M.D., of University College, Dundee. He discussed the various theories offered in explanation of the effect of castration in this disease. He accepted the statement that the very large, soft prostate is more readily influenced by removal of the testes than the hard, fibroid form. From a study of the records of thirty-seven cases of resection of the vas, he found that as many as twenty-six cases were successful. He had, himself, performed double orchectomy in three cases, with good results, and had obtained some slight benefit from resection of the *vasa deferentia* in one case. Mr. Reginald Harrison, who has had a larger experience than any other English surgeon in vasectomy, reported that out of ten cases of bilateral division of the vas deferens, five had received great and lasting benefit. In twelve cases, one vas only was divided, but even then benefit was secured. Mr. Mansell Moullin thought that in advanced age double castration was the operation to be advised, but that earlier in life prostatectomy was to be preferred, if the condition of the patient allowed of such an operation. Dr. Sandberg

of Bergen, expressed astonishment that Professor Senn of Chicago should have expressed the fear that castration would be resorted to for vesical calculus, chronic cystitis, and malignant disease of the bladder, if it was recommended for prostatic hypertrophy, and warmly maintained that surgeons in Norway could not be guilty of such surgery, whatever American practitioners might do. Professor Cameron of Toronto, Canada, related his experience in bilateral castration, and reported nineteen cases: One patient died of suppression of urine on the fourth day, and in two others mental symptoms developed. In one of these an extract of fresh sheep's testicle was administered, *à la* Brown-Sequard, and improvement quickly followed. DR. LAUENSTEIN of Hamburg, read a paper upon

SUBPHRENIC ABSCESS

And reported six cases. He insisted that all these cases should be handed over by the physician to the surgeon for operative procedure. This suggestion proved rather startling to an audience of English surgeons.

DR. SNOW read a paper on

MY EXPERIENCE IN OPERATIONS FOR MALIGNANT DISEASE OF THE BREAST,

in which he made special reference to the insidious marrow lesions to which he has frequently called attention.

MR. STOKER gave a demonstration of the

TREATMENT OF ULCERS BY OXYGEN GAS.

Lantern slides were shown and two patients exhibited, in which marked success had attended the use of the gas.

SECOND DAY—THURSDAY, JULY 30TH.

The greater part of this session was occupied by an interesting discussion upon the

SURGICAL TREATMENT OF APPENDICITIS.

The subject was introduced by an admirable paper from DR. MACDOUGALL. In this, particular stress was laid upon the rapidly fatal termination of many cases when not operated on, and he advised early operation in cases presenting urgent symptoms, but did not consider operation should be the rule in every severe case. He favored removal of the appendix only in those cases where it could be easily accomplished without breaking down protective adhesions in so doing. In this advice all the subsequent speakers concurred. Mr. Southam spoke of relapsing appendicitis, of which variety he reported ten cases. He expressed the belief that such cases should be subjected to operation after the second attack. Mr. Morton of Bristol pleaded for operative treatment in all severe cases, as he thought it impossible to be sure that general peritonitis had not just begun or that a collection of pus was not already present, which might rupture at any moment and set up general inflammation. Mr. Jordan Lloyd of Birmingham advised a vaginal or rectal evacuation when the pus was within the pelvic cavity. Others spoke of the necessity for rapid operation, and also considered early operation imperative in certain varieties of cases, which they endeavored to define. Mr. Banks doubted if mischief in the cecum might not be the cause of many abscesses supposed to arise from the appendix.

DR. BLOCH of Copenhagen called attention to the

possibility of removing certain tumors from the kidney, instead of performing nephrectomy.

DR. CAMPBELL of Belfast spoke of the advantages of the sacral methods of operating in diseases of the rectum and adjacent organs. Dr. Banks related his experience with the Murphy button, which had been favorable, as a rule. Mr. Tubby presented a paper upon

METATARSAL NEURALGIA.

Abscess of the liver was next considered.

THIRD DAY—FRIDAY, JULY 31ST.

THE SURGERY OF THE SUBPERITONEAL TISSUE was discussed in a valuable paper by Mr. ANDERSON, in which he accurately described the position of this tissue and the various morbid conditions to which it was subject. This paper gave an exhaustive treatment of this broad subject, the material for which was chiefly drawn from current medical literature. Dr. MacDougall spoke of its bearing upon certain cases of appendicitis. Cases of sarcoma and lipoma located in this tissue were reported by members. Dr. Sandberg of Bergen advocated the use of tuberculin as a therapeutic agent. A number of interesting cases illustrative of diseases and injuries of the spinal column were reported, and a discussion upon the merits of operative treatment in such conditions naturally ensued. After this DR. BRONNER read a paper upon

OPERATIONS ON THE MASTOID,

and the work of the section was concluded by a presentation by Mr. Albert Morrison of the report of two cases of Jacksonian epilepsy.

SECTION ON OBSTETRICS AND GYNECOLOGY.

The chairman delivered an address upon

THE MORE RECENT DEVELOPMENTS OF GYNECOLOGICAL SURGERY.

He said that in no department of medicine have advances been more repaid, in none has the evolution of our art been more conspicuous and in none the results more brilliant than in gynecology. The great problem now is uterine cancer. When we consider the increasing prevalence of cancer of the uterus it is not to be wondered at that its surgical treatment during the last decade has come into special prominence. There cannot be fewer than eight thousand women now suffering from this disease in England and Wales. Of all women who die of cancer one-third die of cancer of the uterus. The treatment is removal at as early a date as possible. Not only the immediate but the remote results of vaginal hysterectomy are eminently satisfactory. For vaginal hysterectomy to be successful, mobility of the uterus and freedom of the fornices are the essential points. All partial and incomplete operations are practically valueless. If the whole of the diseased structure is not removed the patient, in the majority of instances is worse than before.

During the past ten years, both in private and hospital practice, he had seen over three hundred cases of malignant disease of the uterus. He has been greatly surprised to see how few among these conformed to the

requirements likely to make the operation of permanent value to the patient. The responsibility for this rests both with the patient and the family physician.

Hysterectomy for conditions other than cancer requires very careful guarding. Like the removal of the uterine appendages for inflammatory disease, this operation bids fair to be overdone. Vaginal hysterectomy, as recommended and practiced successfully by some American surgeons for puerperal sepsis and puerperal thrombosis, can very seldom be reasonably advised for three reasons (1) The onset is so sudden and the general systemic infection so rapid that no purely local measures are of any avail. (2) In cases of slow infection from foci in the interior of the uterus, satisfactory results can be obtained by irrigation and curettage. (3) The condition of the septic puerperal woman is unfavorable for such a serious surgical procedure. The *post-partum* condition, which lends itself most readily to vaginal hysterectomy, is that first mentioned by Sanger and discussed recently by Spencer and Eden—viz., *deciduoma malignum*.

Abdominal hysterectomy for bleeding or rapidly growing fibroids is an operation that, except in the hands of experienced operators, is not to be undertaken without considerable anxiety. The ligature of the broad ligaments and uterine arteries, the substitution of the intra- for the extraperitoneal stump, the complete removal of the whole organ by pan-hysterectomy and the remarkable results obtained make these the most reliable methods of dealing with these growths. Among the most recent suggestions for the removal of the annexa is that of Dr. Beatson of Glasgow, who had shown cases of cancer of the breast so advanced as to be inoperable, but in which he had removed the ovaries and tubes, with the result that in one case an apparently hopeless cancer of the breast was actually cured, while in the others a marked improvement took place. As another example of the potent influence of the ovaries upon the general economy, may be mentioned the accidental discovery and development of oöphorectomy for the cure of osteomalacia—a once thought hopeless disease. This is one of the most striking results of the development of gynecological surgery during the past decade. In the adoption of some of these more recent suggestions some of us may appear somewhat conservative, and others inclined to press matters too far and risk too much, yet the end we aim at is one—we can all take our part in that race whose goal is the alleviation of human suffering, whose prize may be shared by all.

The discussion of

DYSMENORRHEA

was introduced by PROFESSOR MURDOCK CAMERON in which he advocated dilatation for the spasmodic form and expressed his preference for graduated metal dilators. Dr. C. Martin thought rest was beneficial in nearly all cases, and hot vaginal douches in inflammatory cases, tampons of glycerin and ichthyol, and saline aperients. Morphine and alcohol should never be recommended. Bromids, belladonna, and cannabis indica he had found most useful, and viburnum a most excellent sedative. In

grave and incurable disease of the appendages their removal was indicated.

In the continuation of the discussion much stress was laid by others upon the rheumatic origin of dysmenorrhea, and the benefit of cycling. The uses of phenacetin, antipyrin, and electricity were extolled.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA.

Forty-sixth Annual Meeting held at Harrisburg, May 19, 1896.

FOR the fourth time in its history, the Medical Society of the State of Pennsylvania convened beneath the shadow of the Executive Mansion in the attractive city of Harrisburg. This is literally true, for the sessions were held in the commodious chamber of the House of Representatives, which, as a convention hall, lacks but one quality, that of good acoustic properties. Thrice before, in 1868, 1877, and 1892, had the Dauphin County Medical Society extended to the State Association its cordial hospitality, and when once more the honor devolved upon it of welcoming the physicians of the State, every effort was made by the committee of arrangements and credentials, under the able chairmanship of Dr. W. T. Bishop, to excel in scientific interest and entertainment, the previous meetings in Harrisburg. That its efforts did not prove futile, all who were present will attest. Notwithstanding the unfavorable weather, which persisted throughout the three days of the convention, rendering the donning of overcoats a necessity, and materially increasing the organic (bacteriologic) constituents of Susquehanna River, the hearty spirit of good-will that existed, and the cordial hospitality of the citizens combined to render the meeting a success.

As heretofore the dominant features of the occasion were the social attractions, preëminent among which should be mentioned the reception tendered by Governor and Mrs. Hastings at their private residence on Wednesday evening, the 20th. Assisted by Private Secretary and Mrs. Beibler, the Governor received his professional visitors in the red room of the mansion, while Froelich's orchestra, stationed in an alcove, rendered choice music. The reception on Tuesday evening, at the Pennsylvania State Lunatic Asylum, was preceded by a charming tally-ho ride from the Commonwealth Hotel, and the visitors were welcomed by the superintendent, Dr. H. L. Orth, and the trustees of the institution. The president, Colonel Louis W. Hall, delivered a short address, which was eloquently responded to by Dr. T. D. Davis of Pittsburg. The receptions by the Dauphin County Medical Society on Thursday evening, at the Commonwealth Hotel, and on Wednesday noon by the Board of Managers of the Harrisburg Hospital, were well attended and much appreciated.

A notable feature of the convention was the celebration of the centennial of the discovery of the vaccine virus by Dr. Edward Jenner, which took place on Friday morning at Marietta. The discovery was completed May 14, 1796, but the celebration was timed to give the State Medical

Association an opportunity of participating in the exercises, and, at the same time, of inspecting the vaccine farms of Dr. H. M. Alexander, at Marietta. These farms are considered the greatest of their kind in the world, and it was there the celebration took place. Fully three hundred people were present, and they were welcomed in an address by Colonel D. B. Case of Marietta. Dinner was served after an inspection of the farms, and was presided over by Dr. W. T. Bishop of Harrisburg. Toasts were responded to by Dr. W. M. Welsh, and Dr. E. W. Holmes of Philadelphia; Dr. M. R. Richards of New York; Professor E. O. Lyte, principal of the Millersville State Normal School; Dr. Rahler of Harrisburg, and Dr. H. W. Alexander. Literary and musical exercises followed.

DESCRIPTION OF THE FARMS.

The Lancaster County vaccine farms, adjoining Marietta, were begun on a modest scale by Dr. Alexander, and have grown within a decade to be the greatest of such establishments in the world, over six million points, besides crusts and lymph tubes, being shipped in a year. Besides these farms, Dr. Alexander has a similar place at Evansville, Pa., containing 167 acres.

On the Marietta farms, the stables have a perfect system of heating, ventilation, and sanitation, the floors being concrete and easily flushed into six tile sewers. All the stall floors are slightly raised. The preparing and finishing stables are divided into several sections. In one, newly received cattle are examined, and registered if the tests applied to discover the existence of disease are favorable. Passing another stable, where they are groomed and fed, they finally reach the incubation stable, as needed. The capacity of these stables is five hundred head, all young heifers, secured in Lancaster county.

There are six tables in the operating-room, which is finished in hardwoods and flushed three times daily when in use. The heifer to be vaccinated is swung upon the table by an ingenious windlass contrivance, and then carefully vaccinated, usually upon the inner portion of the limbs, where, Dr. Alexander claims, the vesicles have the best development.

Long experience is necessary in determining the proper time for removing the lymph, the subject being placed again upon the operating table when this is done, and before the crusts are removed, the parts about them are carefully cleaned. When the lymph begins to exude, like drops of perspiration, it is gathered on small brushes and afterward applied to the ivory points, which are fastened in bunches of fifty. Afterward they are inspected at the packing establishment. Seed-points are collected in a similar manner, but from special heifers. Liquid lymph is removed by flowing it from the blade of a scalpel into vials, and is mixed with glycerin to preserve it. The points are placed in sterilizing jars and then kept in a refrigerator. When hardened they are packed and are ready for shipment.

The session opened on Tuesday morning at nine o'clock, the Society being called to order by the president, Dr. William S. Foster of Pittsburg, with nearly three hundred delegates in attendance. Prayer was offered by Rev.

Dr. Ellis N. Kremer, pastor of the Salem Reformed Church, after which addresses of welcome were delivered by Governor Hastings, City Solicitor Leitz, and W. T. Bishop. Much important business was transacted, including the appointment of a committee of three (Drs. H. S. McConnell, New Brighton; John J. Buchanan, Pittsburg, and G. B. Sweeney, Pittsburg) to take measures to prevent the bill now before Congress, providing for the abolition of vivisection, from becoming a law. The report of Secretary Atkinson showed a steady growth in membership during the past year, and the organization of medical societies in Snyder, Erie, Bedford, Tioga, and Juniata counties. The question of amending the by-laws by authorizing the publication of the transactions of the society in journal form, was laid over until the next annual meeting. Dr. Lemoyne, chairman of the committee on scientific business, announced that sixty-four papers had been secured for the meeting, all of them of practical interest and special merit.

The nominating committee, composed of one member from each county delegation, made its report on Wednesday afternoon. Pittsburg was selected as the next place of meeting, and Dr. T. D. Davis of that city, made the statement that the medical fraternity in Allegheny County will endeavor to make that the most successful convention in the Society's history. The following officers and delegates were chosen:

President, Dr. E. E. Montgomery, Philadelphia; first vice-president, Dr. C. S. Shaw, Allegheny; second vice-president, Dr. F. B. Ball, Clinton; third vice-president, Dr. T. M. Livingston, Columbia; fourth vice-president, Dr. A. C. Wentz, York; secretary, Dr. W. B. Atkinson, Philadelphia; assistant secretary, Dr. Adolph Koenig, Allegheny; treasurer, Dr. G. B. Dunmire, Philadelphia.

Members of judicial council—Dr. M. A. Rhoads, Berks; Dr. John H. Pachard, Philadelphia; Dr. John Curwen, Warren.

Committee on publication—Dr. Edward Jackson, chairman; Dr. H. A. Hare, Philadelphia; Dr. G. W. Guthrie, Luzerne; Dr. J. H. Wilson, Beaver; Dr. D. W. Nead, Dauphin.

Censors, First District—J. W. Walk, Philadelphia; S. P. Bartleson, Delaware; James Fulton, Chester.

Second District—J. B. Walker, Bucks; E. M. Green, Northampton; Wm. B. Erdman, Lehigh; Wm. L. Kutz, Carbon.

Third District—J. K. Weaver, Montgomery; W. Murray Weidman, Berks; A. F. Branson, Schuylkill.

Fourth District—T. M. Livingston, Columbia; H. McGowan, Dauphin; H. O. Qaris, Perry; William M. Guilford, Lebanon; A. M. Smith, Snyder.

Fifth District—W. F. Bacon, York; John Montgomery, Franklin; R. P. Coons, Cumberland.

Sixth District—Crawford Irwin, Blair; S. C. Stever, Huntingdon; D. M. Crawford, Juniata.

Seventh District—J. S. Troxell, Cambria; H. M. Latchey, Somerset; A. H. Hershberger, Mifflin; J. W. B. Kamerer, Westmoreland; J. T. Cess, Indiana.

Eighth District—Samuel Ayers, Allegheny; J. B. Donaldson, Washington; W. S. Throckmorton, Greene.

Ninth District—S. D. Bell, Butler; H. M. Shallenberger, Beaver; J. W. Marston, Mercer; J. F. Ritchey, Venango; R. S. Wallace, Clarion.

Tenth District—W. B. Hazeltine, Warren; A. Mulhaupt, Elk; C. A. Belmer, Jefferson; A. M. Straight, McKean; Daniel L. Davis, Erie; W. D. Hamaker, Crawford.

Eleventh District—J. L. Henderson, Clearfield; G. F. Harris, Center; G. F. Bell, Lycoming; R. B. Watson, Clinton; W. D. Vedder, Tioga.

Twelfth District—P. C. Newbaker, Montour; L. B. Kline, Columbia; W. G. Weaver, Luzerne.

Thirteenth District—S. M. Woodburn, Bradford; C. C. Halsey, Susquehanna.

Delegates to American Medical Association—J. J. Buchanan, Allegheny; W. B. Ulrick, Delaware; H. X. Baubreck, Franklin; G. B. Dunmire, Philadelphia; W. E. Sweiler, Cumberland; William Mickelsan, Venango; W. B. Logan, Cambria; W. C. Simpson, Beaver; Arthur C. Wheeler, Erie; W. S. Foster, Allegheny; H. G. McCormick, Lycoming; A. H. Habenstadt, Schuylkill; Robert G. Furst, Clinton; W. S. Wilson, Mifflin; Thomas Milliken, Greene; A. E. Snyder, Susquehanna; E. H. Coover, Dauphin; W. D. Tweedle, Carbon; J. T. Klinedinst, York; W. Murray Weidman, Berks; J. H. Wilson, Beaver; J. W. Groff, Montgomery; Alex. Craig, Lancaster; J. W. Morrow, Forest; Evan O'Neill Kane, McKean; H. G. Creitzman, C. L. Stevens, Bradford; G. G. Harman, Huntingdon; B. H. Detweiler, Lycoming; R. H. Short, Cumberland; Willis M. Baker, Warren; W. S. Brenholtz, Lancaster; W. S. Langshore, Luzerne; F. F. Davis, Venango; J. W. Sheetz, Northumberland; J. R. Care, Montgomery; E. R. Gardner, Susquehanna; John Fry, Blair; C. M. Strickler, Warren; W. R. Palmer, Elk; Laura J. Dice, York; Ellen Brown, Delaware; I. P. Klingensmith, Indiana; D. H. Bergey, Montgomery; John Montgomery, Franklin.

Delegates to Pan-American Medical Congress—J. M. Anders, Philadelphia; Ernest La Place, Philadelphia; W. T. Bacon, York; R. S. Ramsay, Franklin; A. M. Miller, Lancaster; E. M. Carson, Montgomery; T. D. Davis, Venango.

Delegates to Maryland Medical Society—C. C. Hummel, Cumberland; W. Murray Weidman, Berks.

In the scientific matter of the meeting there would seem to be as worthy of special mention, the discussions on typhoid fever, antitoxin, and alcohol; the magic-lantern lecture on certain forms of the malarial parasite, by Dr. Judson Doland of Philadelphia, the address of the president, Dr. William S. Foster of Pittsburg, on the relations existing between the profession and the public, and the address on surgery, hygiene, and obstetrics, by Drs. John J. Buchanan of Pittsburg, J. W. Moore of Easton, and Israel Cleaver of Reading.

J. C. LANGE, M.D., of Pittsburg, read a paper on

THE ANTISEPTIC FACTOR OF THE TREATMENT OF TYPHOID FEVER.

He claimed that if the antiseptic factor be properly employed, it may prevent the necessity for symptomatic

treatment. External antiseptics consists in the use of bichlorid baths and clean clothing. Official antiseptics includes rectal and vaginal washes of carbolic-acid solution, and mouth-washes of boracic acid and potassium chlorate. The ears also should be rendered aseptic. Intestinal antiseptics includes the use of guaiacol and iodoform, while general or constitutional antiseptics may be obtained by the administration of one-eighth grain of calomel thrice daily. No other treatment is indicated unless hemorrhage occurs, when opium will be required. Lange claimed that this course of treatment will prevent the occurrence of secondary infection, which is commonly known as the complications of typhoid fever.

H. S. McCONNELL, M.D., of New Brighton, read a paper on

ELIMINATION, STARVATION, AND ANTISEPTICS IN THE TREATMENT OF TYPHOID FEVER.

He urged the importance of the starvation treatment of the disease. His paper was based on the fact that the hydrochloric acid and pepsin are greatly diminished in amount during the disease. He would feed mainly on hot water.

T. P. SIMPSON, M.D., of Beaver Falls, spoke of

THE USE OF ALCOHOLIC STIMULANTS IN TYPHOID FEVER.

He stated that the abuse of alcohol in this disease has done more harm than good. The routine use of alcohol is to be deprecated. Many cases of the fever require none whatever. Its excessive use induces gastric catarrh. It is useful only in the small quantity that increases the gland secretion and does not overstimulate. If employed, whisky is the best form for the purpose.

In the discussion of these papers, Dr. McCormick of Williamsport, protested against the use of opium in hemorrhage. There are remedies that will not bind the bowels that are far superior to it.

DR. FOWLER of Marionville, emphasized the fact that a certain amount of fever in the disease is curative, as suggested by Professor Hare, and this must be expected and should not be checked.

DR. T. D. DAVIS of Pittsburg, remarked that typhoid fever is greatly modified by the district in which it occurs; therefore, the treatment must vary according to the type of the disease presented. Guaiacol will not act in that form of the fever in which there is no malarial element.

In reply, Dr. Lange stated that he would favor the use of morphin in hemorrhage. He objected to the use of the ice-bag, and would prefer to use heat to dilate the efferent vessels and thus control the bleeding. The action of ergot on the blood-vessels is not very definite, save on those of the cord and brain. In this disease the source of the hemorrhage, whether capillary or venous, is not known. Other remedies than morphin fail to reach the spot in time.

DR. McCONNELL urged that hemorrhage is the best indication that the bowel is not aseptic, and should suggest the use of intestinal antiseptics.

EDWIN ROSENTHAL, M.D., read a paper on

THE REDUCTION OF THE PERIOD OF INTUBATION BY SERUM TREATMENT OF LARYNGEAL DIPHTHERIA.

He stated that he wished to prove that intubation is preferable to tracheotomy. He is in the habit of having his tubes regilded after each operation, so that the patient practically has a new tube. In European cases, the reduction of the period of intubation has been from eighteen to twenty-five hours; in the American cases, the reduction is from sixty to seventy-five hours. Under the serum treatment, no alarming symptoms appeared.

DR. W. M. WELCH, of the Municipal Hospital of Philadelphia, stated that his experience was not in accord with the results of Dr. Rosenthal's paper. The only way to prove that the tube in cases of antitoxin treatment can be removed earlier than in the non-antitoxin cases, is to make the experiment by removing the tube in both classes of cases daily, and this has not been done. He has tried to remove the tube at an earlier period, but was compelled to return it. The patient who wore the tube the longest (three months) in Philadelphia, was treated with antitoxin. During this time he coughed up the tube at least seventy times, but was compelled to have it returned.

DR. T. D. DAVIS of Pittsburg, claimed that much depended upon how much antitoxin was used, when it was used, and how. He has seen good results follow its employment. He has never seen the membrane persist forty-eight hours under the use of antitoxin.

DR. ROSENTHAL, in reply, stated that he had used the remedy in 134 curative cases. It is necessary to know how to use it, and a good preparation must be employed. He uses Mulford's antitoxin. After the membrane disappears, he waits one day and then removes the tube. If the patient improves after the first dose, he increases the dose; thus, if the first dose was 1-1000, the second should be 2-1000, and the third 4-1000. Billings has proved that antitoxin does not alter the blood. He has never known harm to follow the use of the antitoxin.

JAMES FULTON, M.D., of New London, read a paper on

ALCOHOLIC STIMULANTS IN THE TREATMENT OF DISEASE.

This excited an animated discussion, which was participated in by Drs. Hare, Borland, Flick, and Lemoyne. The value of the drug depends upon its judicious employment in well-selected cases; its routine use is to be deprecated, and the dose can only be determined according to the requirements of the case.

E. B. BORLAND, M.D., of Pittsburg, read a paper on

THE PREVENTION OF TUBERCULOSIS.

He stated that the convalescence of typhoid fever, measles, and whooping cough, offer the debility and lesions necessary for the development of tuberculosis. The alimentary tract in children is the most important avenue of tuberculous infection, and the respiratory tract in adults, dental instruments, communion cup, drinking-vessels, kissing, and the like, are important sources of infection. Fifteen per cent. of milk-cows are tuberculous, and these should be destroyed as soon as discovered; all milk should be boiled before using. Expectoration

upon floors and sidewalks should be made a misdemeanor. Cuspidors containing straw, saturated with 1-250 mercuric-chlorid solution should be placed in all public places. Latent tuberculosis needs no precautions.

DR. LEMOYNE believes that the attitude of the public upon this important question is a disgrace to civilization.

DR. E. O. KANE of Kane, regards the chief predisposing influence in the production of tuberculosis as heredity, and this hereditary tendency is largely increased by the debilitating influence of inherited syphilis, which affects from one-twentieth to one-tenth of the race.

DR. L. FLICK of Philadelphia, does not believe that there is any relationship existing between syphilis and tuberculosis. It is doubtful, he stated, whether tuberculosis can be contracted in utero, and there is no transmission of the disease from mother to child.

DR. J. M. ANDERS of Philadelphia, did not agree with the last statement. In very rare cases, the tubercle bacillus may be found in the placenta, and in the tissues of the newborn infant. There may be late hereditary tuberculosis as well as late hereditary syphilis.

DR. JAMES TYSON of Philadelphia, heartily endorsed the views advanced by Dr. Anders.

DR. E. LAPLACE of Philadelphia, stated that tuberculosis appears in various forms in different ages of the individual. It first develops as bone-tuberculosis; later as gland-tuberculosis; later still, as meningeal tuberculosis, and finally, as pulmonary tuberculosis, which is the refinement of tuberculosis. The tendency to the disease is born with the individual, but this is only the minor consideration. Reduce the condition of the body-vitality and the disease may readily be developed. This has been demonstrated upon the brown rat which will not contract the disease under normal circumstances.

J. M. ANDERS, M.D., of Philadelphia, contributed an article on

SOME THERAPEUTIC USES OF GUAIACOL.

He stated that this drug was of service in three groups of cases: (1) In certain febrile affections, acute and chronic, especially typhoid fever and the pneumonias. McCormick has used it more than eight hundred times in these diseases with excellent results. Rigors indicate the administration of too large a dose. Anders has had decided rigors with high fever follow in the two cases of this disease in which he has used guaiacol. He has, however, had excellent results in intestinal catarrh, with fermentative changes. Fever, dependent upon local inflammation, is reduced much more readily by guaiacol than that dependent upon general causes. He has used it in pulmonary tuberculosis, but has abandoned it on account of the sweating produced thereby. (2) Afebrile diseases, as myalgia and neuralgia, eleven out of twelve cases of neuralgia were successfully treated by him by guaiacol used externally. (3) Acute, subacute, and chronic rheumatism. In this class of cases guaiacol relieves pain, but does not control the inflammatory action.

E. E. MONTGOMERY, M.D., of Philadelphia, read a paper on

THE TREATMENT OF PELVIC INFLAMMATORY CONDITIONS THROUGH VAGINAL INCISIONS.

He claimed that both the vaginal and abdominal routes have their place in pelvic surgery. Pelvic inflammation may extend through the lymphatics and blood-vessels, although it commonly extends from the uterus to the tubes. The offending cause may be removed per vaginam, and even a cure result with the minimum danger to the patient. The cervix uteri is often the seat of disease, and contains rich lymphatics. The vaginal incision affords a ready means of excision of the cervix and uterus, and its appendages. Pryor has suggested an incision in the posterior fornix for retroflexion with adhesions. The latter are broken up, and the uterus held forward by a tampon placed back of the organ, while another is placed in front of the cervix in order to push this back. Baldy objects to the vaginal route as unsurgical; the wound is foul and the method objectional in every sense. Noble was not in accord with Montgomery as to the relative value of the vaginal route as compared to the abdominal. Better results follow the latter. A larger percentage of complete operations can be done from above. From above fewer complications follow, such as injuries of the ureters and vessels. He would prefer to operate from below in puerperal and old neglected cases.

JOHN J. BUCHANAN, M.D., of Pittsburgh, made an address upon

SOME IMPORTANT PROGRESS IN SURGERY.

In speaking of appendicitis, he recommended the removal of the appendix in the earliest stage of the disease. Recurrent and chronic cases should be operated upon between the attacks. There are two periods in which the appendix may be safely removed, namely, at the beginning, and in the intervals. In difficult cases of fracture in which reduction is impossible, opening the wound and suturing or pegging the fragments together is advisable. Detached fragments of bone should not be removed. The process of repair is delayed in operative cases by the absolute immobility of the fragments, which hinders the formation of callus. He advised the infusion of many quarts (six or more) of saline solution directly into the veins when much loss of blood has occurred before or during operation. If required, the infusion should be repeated once or twice.

J. M. BALDY, M.D., of Philadelphia, offered a paper on PELVIC PERITONITIS FROM THE STANDPOINT OF THE GENERAL PRACTITIONER.

He said that in chronic disease of the tube with acute exacerbations, therapeutics will probably cure the symptoms, but not the original condition of the tube, which persists as a constant menace to the patient. A diagnosis of the diseased condition is very important in influencing the prognosis. The medical treatment of peritonitis is routine, and not influenced by the cause of the disease. At times it is important to relieve the acute symptoms before the operation is performed, and the physician should be able to do this. Rest, depletion, and relief of pain are the indications of treatment. Sexual rest is secured by a large, soft wool tampon. Depletion may be accomplished by scarification or leeching of the cervix, or better by saline purges (Epsom salt) in full doses. If this be re-

jected by the stomach, calomel may be exhibited in grain doses, repeated as required, or an enema of soapsuds will answer. In severe pain, from one-sixth to one-fourth grain of morphin should be given after free purgation. The depletion should be followed by vaginal douches twice daily. Antipyretics are not required. Noble remarked that the abdomen is apt to suppurate after counter-irritation. He would not use douching during the height of the peritonitis. Codein with hyoscyamus will relieve pain without locking up the bowels as morphin will do. Massey recommended the icebag for the pain, and Lemoyne prefers for catharsis sodium sulphate, which is a diuretic as well as a cathartic.

CARL SEILER, M.D., made remarks on

PERFORATION ON THE NASAL SEPTUM.

This, he said, is not a rare condition. Perforation of the lower or cartilaginous portion of the septum is rarely syphilitic, but usually "chronic traumatic," that is, due to the repeated removal of scabs, due to the pressure exerted by a spur or by an hypertrophied turbinated bone. A perforation here may also be caused by abscesses of Jacobson's organ, or by pressure exerted by foreign bodies, or by unskilful surgical interference. To repair the condition, a plastic operation is preferable. A hard rubber obturator has been successful in some cases. In operating, the flap is taken from the cartilage above or below, and secured by fine silk sutures.

WILLIAM H. HARRISON, M.D., of Harrisburg, read a paper on

THE PATHOLOGY OF THE BLOOD OF THE INSANE.

He said that a tendency to slow coagulation is a rule in insanity, although in acute cases there is noted at times an increased tendency to clot. By the condition of the blood the diet may be regulated and corrected. Harrison emphasized the value of the hematokrit, hemomelis, and other blood-examining instruments in the study of insanity. There is a marked diminution in the number of the red corpuscles in melancholia, and this is especially marked in those cases in which forced bleeding is necessary. Tyson regards this as a new field of study. He spoke of the insanity following typhoid fever, which he considered as a variety of insanity of exaltation.

G. E. SHOEMAKER, M.D., of Philadelphia, read a paper on

THE FIBROID UTERUS—WHEN AND HOW TO OPERATE.

He said that small tumors call for extirpation when local pressure and bleeding are present, the flow lasting over seven days. If drugs be employed, hydrastin and ergot may be given. If the tumor occupies the lower segment of the uterus in pregnancy, hysterectomy should be done in the early months. All tumors affected with suppurative inflammation, or that are growing rapidly, should be removed. Hysterectomy should not be considered in advanced phthisis. Kidney disease, however, is not a contraindication. A small tumor may be shelled out in some cases; in other cases, hysterectomy is advisable by the abdominal route, dropping the stump. Noble

advised prompt operation. It is only exceptional cases that do not require operation.

HENRY BEALES, JR., M.D., of Philadelphia, read a paper on

THE CLINICAL STUDY OF DIGITIN.

This is a yellow crystalline substance, quite distinct from digitalin. It is indicated in all diseases in which digitalin is required. It is pronounced by Merck to be therapeutically inert, but if given in doses up to one-half grain three or four times daily, it is useful. The drug does not irritate the digestive tract as does digitalin. Dropsical disappear almost immediately from the direct stimulating action of the drug upon the cardiac ganglia and centers governing the action of the heart. Passive cerebral hyperemia, with vertiginous symptoms indicating threatened apoplexy, may be relieved by proper doses of digitin. The power of the drug to influence capillary tonus is marked. It restores nutrition by stimulating metabolic action in the cell-structure. It is a very reliable drug.

T. D. DAVIS, M.D., of Pittsburg, presented a paper on

THE IRRITABLE UTERUS OF PREGNANCY.

He stated that a common symptom of the condition is pain variously located, appearing in the sacral region, in the regions of the ovaries, or in the uterus. It is often severe enough to disturb sleep. The condition is a true neurosis, and in its treatment the free use of bromids is necessary. The patient should not be permitted to confine herself to bed.

J. W. MOORE, M.D., of Easton, delivered an address on

HYGIENE.

He said that one-fifth of all children, dying in the first year, perished from tuberculosis of the digestive tract, produced by the milk ingested. He believes that the theory of the contagiousness of tuberculosis founded on statistics covering a limited area of a community, and taken during a limited number of years, is not a satisfactory nor a correct one. He thinks that our knowledge of bacteria is still very meager, and is not in accord with the enthusiasm of the age.

F. S. PEARCE, M.D., of Philadelphia, offered a paper in a clinical report on

THE USE OF TESTICULAR FLUID INJECTIONS.

Covering a department of the subject of organotherapy. Five hundred injections were made by him of Brown-Sequard's fluid in thirty males and ten females, suffering from locomotor ataxia, sclerotic changes in the cord, neurasthenia, and the like. From twenty to thirty minims formed the average dose injected. The frequency of the injection should be every other day. Nausea, vomiting, and diarrhea indicate an overdose. Improvement was noted in nervous diseases of a chronic nature, and consisted in a general stimulation as well as an increase in the sexual sense.

R. W. STEWART, M.D., of Pittsburg, spoke on

THE TECHNIC OF SUPRAPUBIC CYSTOTOMY.

He emphasized the danger of opening the peritoneal cavity. By the technic offered, he showed that it need not be involved. He feels for the upper border of the symphysis, and introduces the knife at this point, hugging the inner surface of the pubic bone. The operation can be done on an empty as well as on a distended bladder without any danger of involving the peritoneum.

MARY MCC. WENCK, M.D., of Sunbury, read a paper on

THE HYGIENE OF PREGNANCY.

She dwelt upon the influence of the mental condition of the mother upon the fetus. If she be irritable during her pregnancy, the child will be the same, and she claims this fact from a study of one thousand cases in her own practice. Clothing, food, exercise, and muscular tonics, including friction and massage, are important elements in the hygiene of gestation.

Other papers of note were those by Drs. B. F. Baer of Philadelphia, on "Hysterectomy for Retroperitoneal and Intra-ligamentous Uterine Fibroid Tumors;" E. W. Holmes of Philadelphia, on "Cerebral Concussion and Compression with Report of a Case of Trephining;" Ernest Laplace of Philadelphia, on the "Surgical Treatment of Insanity, with Report of Cases," in which he described his operation of craniectomy; Lewis J. Lauterbach of Philadelphia, on "Phono- and Pneumo-massage for Suppurative Disease Deafness;" Anna M. Fullerton of Philadelphia, on "Records of Work in the Woman's Hospital of Philadelphia;" and S. S. Fowler of Marionville, on "A Practical Way for the Increase of Membership." A number of papers were read by title.

CIRCULAR OF INFORMATION FROM THE NEW YORK CITY HEALTH DEPARTMENT.

THE IMPORTANCE OF BACTERIOLOGICAL EXAMINATIONS IN THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

The symptoms of incipient pulmonary tuberculosis are few, not marked and not uniform. They are frequently not sufficient in number or importance to attract the attention of the affected individual, and their significance is often not recognized by physicians, as there are other conditions which closely resemble incipient pulmonary tuberculosis.

Tuberculosis results from the reception into a susceptible system of tubercle bacilli. These are usually drawn in with the air inspired, and find lodgment in some portion of the respiratory passages. There they increase in number, when conditions favorable for their multiplication exist, and by their growth set up an inflammation which becomes evident in the formation of new tissues, the so-called tubercle. The inflammatory changes are usually at first very slight, and the effects entirely local. Moreover, in this early stage there is a marked tendency to a localization and restriction of the process and to an entire recovery. Many persons get well untreated. In such cases the tubercles are gradually replaced by fibrous tissue, and the bacilli die or are rendered harmless. At this time, *i.e.*, when a patient has tuberculosis, but when

the disease is confined to a small, sharply circumscribed area, there is the best opportunity for successful treatment.

On the other hand, in a large percentage of the unrecognized and neglected cases, recovery does not take place, but the tubercular process extends; new tubercles form, the old ones become necrotic, and there is a coalescence of separate foci of infection, forming large areas of disease, till a great part of one or both lungs is affected. At the same time, the bacilli in their growth form poisons, which are absorbed by the system, and in the diseased or necrotic tissues other bacteria are deposited, producing the so-called mixed infection.

The disease has now assumed a far more serious aspect, is easily recognizable, and constitutes what is commonly called consumption. With few exceptions, this progresses to a fatal termination. The classical symptoms commonly assigned to early tuberculosis, *i.e.*, persistent cough with expectoration, loss of appetite and weight, hemoptysis, are really signs, in most instances, not of the incipient affection, but of the advanced disease. In the early stage, a positive diagnosis is possible only when tubercle bacilli are found in the expectoration. It is an impression commonly held that the bacilli are not found unless the disease has advanced to a point at which the signs presented on a physical examination are themselves almost conclusive. Such, however, is not the case; bacilli are not infrequently found in the expectoration when the physical signs are indicative only of a slight bronchitis, or when there are absolutely no physical signs obtainable. When signs of consolidation are present, the affected area is always considerable, and always far greater than would be inferred from the evidences obtained on examination. It is, therefore, of supreme importance that the diagnosis should be made at the earliest possible moment. The expectoration should be examined early, and if bacilli are not found immediately, should be examined repeatedly in every case of doubtful diagnosis. All cases, also, in which there is a cough, with or without expectoration, persisting for more than a few weeks, and all cases in which there is unexplained pallor, loss of appetite, languor, or loss of weight (general debility), even if the cough appears to be almost entirely absent, should be considered cases of doubtful diagnosis, and bacilli should be sought for in the expectoration.

In conclusion, emphasis should be laid upon the following clearly demonstrated facts:

First.—Incipient tuberculosis tends to recovery.

Second.—Advanced tuberculosis, with or without mixed infection, tends to a fatal issue.

Third.—In all coughs which last more than a few weeks, tuberculosis is to be suspected as a cause.

Fourth.—Successful treatment and prophylaxis demand the earliest possible diagnosis.

Fifth.—The positive diagnosis of incipient pulmonary tuberculosis properly so-called is possible only when tubercle bacilli are found in the expectoration.

Sixth.—Repeated examinations of the expectoration are frequently necessary to demonstrate the presence of the

tubercle bacilli in incipient cases of pulmonary tuberculosis.

THE USE OF MALLEIN FOR THE DIAGNOSIS OF GLANDERED HORSES. 1896.

The Health Department of New York City is prepared to furnish mallein for the diagnosis of glanders in horses. This is prepared by Nocard's method, and is furnished in vials containing a single dose of $2\frac{1}{4}$ c.c.

In order that accurate results may be obtained in all cases where mallein is employed for the diagnosis of glanders, the following directions should be carefully followed.

First.—The temperature of the animal to be tested should be taken three times a day for three days previous to the injection, to determine the mean temperature.

Second.—The animals to be tested should be protected against sun, rain, or wind, as these influences may occasionally cause a rise of temperature of one or two degrees or more, independent of the action of mallein.

Third.—On the day of injection, the temperature should be taken every two hours from early morning until late at night, and during the two succeeding days it should be taken three times a day.

Fourth.—The injection should be made into the shoulder, and the skin should be previously washed thoroughly with soap and water and then with some antiseptic solution, such as lysol 2 per cent., carbolic acid 5 per cent., or bichlorid of mercury 1-1000. Care should be taken to carefully sterilize the needle of the syringe after each injection, or, better, to use separate needles, if healthy and suspected animals are being inoculated at the same time. The animals supposed to be healthy should be first injected, and the needle (if it is necessary to employ the same needle) carefully sterilized by heating to a red heat or boiling in a 1 per cent. soda solution after the injection of each suspicious animal.

Fifth.—The thermometer should be sterilized in 5 per cent. carbolic acid solution after the temperature of each horse is taken.

Following an injection of mallein in a glanderous horse, there will be a general reaction, with a rise of temperature and a local reaction. The temperature usually begins to rise three to four hours after the injection, and reaches its maximum between the tenth and twelfth hour. Sometimes, however, the highest point is not reached until fifteen or eighteen hours after the injection. This elevation of temperature is from $1\frac{1}{2}$ to 2° C., or even 4° C. above the normal mean temperature (*i.e.*, 2.7 to 7.2° F.).

In a healthy animal the rise of temperature, as a rule, amounts to only a few tenths of a degree, but it may reach a degree C. ($=1.8^{\circ}$ F.), or a little more. The rise of temperature, however, should always be considered in connection with the general and local reactions.

In a glanderous animal, after an injection of mallein, the general condition is more or less profoundly modified. The animal has a dejected appearance; the countenance is pinched and anxious; the hair is rough and on end; the flank is retracted; the respirations are rapid; there are often slight or decided rigors; the appetite is gone. These

symptoms vary greatly in different animals, but are never completely lacking.

In healthy animals the general symptoms do not occur.

The local reaction around the point of injection in a glanderous animal is very marked. A few hours after the injection, there appears at this point a large, warm, tense, and very painful inflammatory swelling, and running out from the contour of this swelling will be seen hot sensitive lines of sinuous lymphatics, directed toward the neighboring lymphatic nodes. When the injection has been made aseptically, this swelling never suppurates. It, however, increases for twenty-four to thirty-six hours, and persists for several days, not disappearing entirely until after eight or ten days.

In healthy animals, at the point of injection, mallein produces only a small edematous tumor, slightly warm and sensitive, and the edema, instead of increasing, diminishes rapidly and disappears entirely in less than twenty-four hours.

It is important to remember that the phenomena produced by mallein in glanderous animals persist for a long time, the prostration continuing for from twenty-four to forty-eight hours, and the temperature remaining above normal.

If in any case the reaction obtained is only sufficient to cause the suspicion of glanders (*e.g.*, a rise of temperature of 0.8 to 1.1° C., or $1\frac{1}{2}$ to 2° F.), the injection of mallein should be repeated at the end of four or five days. Healthy animals seem to acquire an immunity to mallein, while glanderous animals will still react.

Certain diseases, *e.g.*, parotitis, often cause marked oscillations of temperature. When testing horses affected with such diseases, it should be noted after the injection whether the rise of temperature is persistent, and whether the general and local reactions are present. It is always better, however, when possible, to avoid injecting mallein in horses which already show an elevation of temperature.

In acute glanders accompanied with high temperature, it sometimes happens that after an injection of mallein the temperature does not rise a full degree. In other diseases, where the temperature is already high, there will generally be no elevation at all of the temperature, and there may even be a depression.

The Health Department of New York especially requests that all veterinary surgeons who use mallein will forward full reports of the results obtained.

By order of the Board of Health.

CHARLES G. WILSON,
President.

EMMONS CLARK,
Secretary.

REVIEWS.

IN SICKNESS AND IN HEALTH: A Manual of Domestic Medicine and Surgery, Hygiene, Dietetics, and Nursing. Edited by J. WEST ROOSEVELT, M.D. Pp. 991. New York: D. Appleton & Co., 1896.

BUT a small part of this large and elegant volume is

written by Dr. Roosevelt. A chapter or a section is furnished respectively by Drs. Geo. W. Crary, S. T. Armstrong, A. B. Johnson, Wm. P. Northrup, F. W. Jackson, Samuel W. Lambert, Frederick Peterson, and H. A. Griffin, and by Messrs. Josiah Royce, Frederick S. Lee, and Joseph H. Seers, and by Miss Anna C. Maxwell.

Our disapproval of a manual of *Domestic Medicine* has been stated very positively in these columns. We consider the rational practice of medicine as based on a diagnosis, and we fail to understand how the layman is to be invested, by the purchase of this book, with the faculty of entire comprehension of disease. The publishers distinctly state that the book was prepared for household use and "for the unprofessional man and woman." We therefore condemn it, in large measure, while we approve very heartily of the instruction of the layman in hygiene, dietetics, nursing, and "first aid."

The chapters on Physiology, Outlines of Psychology, and Physical Training are admirable and of great value. So also are the sections on Nursing of the Sick, by Miss Maxwell, and on Nervous and Mental Diseases, by Dr. Peterson. In the latter section the questions of heredity, psychic, and somatic, of nervous stress and of alcoholic inebriety are treated in a lucid, useful, and interesting way. While giving the reader the information he ought to possess, Peterson skilfully avoids suggesting treatment, and refers him to a physician.

It is with the parts of the book that suggest and encourage self-prescribing and lay "doctoring" that we find grave fault. Fronting page 646 is an illustration of a typical case of scarlet fever and one of a typical case of measles. Of what possible use are they to laymen? Suspecting either of these diseases, the possessor of this dangerous work will naturally turn to these lithographs, and, finding that the case in hand does not show the characteristics of either picture, will decide that the child is safe. Probably contagion will go on unchecked, the mother's anxiety having been allayed; for has she not, in effect, consulted the skilful Dr. West Roosevelt by looking at the pictures? But, to do the work full justice, she has a safeguard in a sentence on page 647, where we read: "In a general way, the history of the behavior of the eruption of typical scarlet fever conforms to the old rhyme: 'One to begin, two to make show, three to make ready, and four to go!'" How lucid and helpful!

On page 668 we find this sentence: "Colchicum used during an acute attack (of gout) almost always checks it within twenty-four hours." While the policy of checking it is deprecated, nothing is said about the danger of the drug. No caution is given against its use, unless prescribed by a physician. It is simply put into the hands of the domestic dabbler in empiricism to use as he will. Better it were a knife!

The author of the section entitled "Medicines and Treatment" has a curious notion of his reader's intelligence, for he puts in quotation marks the expressions, "ride the wheel," "nervousness," "virus," and "cow-pox," yet omits the marks in the case of prophylactic, premonitory, etc. Much of his advice is dangerous, some of it is erroneous. On page 833 he says: "All diarrheas

must be promptly checked." On the same page he says "avoid night air" in malarious districts. What shall we breathe at night? The first medicine he recommends, in a long list which he considers suitable for the family chest, is morphin sulphate, in tablets of one-eighth of a grain each. "Dose for an adult, one tablet" (page 835).

The third drug he suggests is tincture of aconite, in tablets, to be labeled: "For fever. For sore throat. Dose for an adult, one tablet every half hour, until tongue and lips feel numb"! At the close of the paragraph he adds: "In long-continued and low fevers, and if exhaustion is present, as shown by a weak pulse, it will do harm." What does the laity understand by a "long-continued" or a "low" fever? On page 840 he says: "True chills and fever occurs in attacks at the same time every day, or every second (rarely every third) day." Is that error merely typographical? Speaking of the fashion of calling every ache a symptom of "malaria," and using quinin for it, he says (page 840): "Fortunately, this error, though foolish and unscientific, is usually not productive of much harm." The aurists will assure the author of the contrary fact, that this indiscriminate quinin-dosing is productive of much harm. We commend, without reservation, the author's denunciation of the continuous use of coffee, and rejoice to see that he positively forbids it to "youth, nervousness, most diseases of the heart, some forms of indigestion, and in the bilious tendency." We echo his statement that chlorate of potash should never be used by the laity. We must take exception to his exhortation to the obese, when, in spite of the simple remedies which he suggests, they remain fleshy: "Be content, for nature intended it to be so." By a parity of reasoning we should disregard malignant tumors, tubercular joints, and cross-eyes.

But the most amazing advice that we have found in the book, during a hasty review, is contained in the following sentence, quoted from p. 546. Dr. Johnson has described, very superficially, acute catarrhal inflammation of the middle ear, and adds: "The treatment consists of puncture of the drumhead, in severe cases, to let out the retained secretion, and of inflation of the middle ear through the Eustachian tube." This is advice upon which the "unprofessional man and woman" are to practice "domestic surgery."

Enough has been quoted to indicate the extent to which the book transcends the bounds of a proper "manual of domestic practice," and it remains but to praise the typography, the paper, and the presswork, which are of superior style and handsome appearance.

CHANGES IN THE MEDICAL CORPS OF THE U. S. NAVY FOR THE WEEK ENDING JULY 25, 1896.

July 18.—Assistant Surgeon L. MORRIS detached from Indian Head Proving Ground, ordered home and granted one month's leave.

July 21.—Assistant Surgeon F. C. COOK, detached from treatment at the New York Hospital and ordered to proceed home.

Medical Director G. H. COOK, detached from special duty at Philadelphia and ordered to take charge of hospital there.

Medical Director D. KINDLEBERGER, detached from duty in charge of hospital at Philadelphia, ordered home and await orders.

Medical Inspector W. G. FARWELL, ordered to special duty at Philadelphia, attending officers.